

# Utah Water Supply Outlook Report

January, 2007



**Steel Creek Park SNOTEL, December 2006, north slope of the Uinta Mountains.  
Photo by Ray Wilson, NRCS, USDA .**



# Water Supply Outlook Reports

## and Federal - State - Private Cooperative Snow Surveys

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### *How forecasts are made*

Most of the annual streamflow in the western United States originates as snowfall that has accumulated in the mountains during the winter and early spring. As the snowpack accumulates, hydrologists estimate the runoff that will occur when it melts. Measurements of snow water equivalent at selected manual snowcourses and automated SNOTEL sites, along with precipitation, antecedent streamflow, and indices of the El Niño / Southern Oscillation are used in computerized statistical and simulation models to prepare runoff forecasts. These forecasts are coordinated between hydrologists in the Natural Resources Conservation Service and the National Weather Service. Unless otherwise specified, all forecasts are for flows that would occur naturally without any upstream influences.

Forecasts of any kind, of course, are not perfect. Streamflow forecast uncertainty arises from three primary sources: (1) uncertain knowledge of future weather conditions, (2) uncertainty in the forecasting procedure, and (3) errors in the data. The forecast, therefore, must be interpreted not as a single value but rather as a range of values with specific probabilities of occurrence. The middle of the range is expressed by the 50% exceedance probability forecast, for which there is a 50% chance that the actual flow will be above, and a 50% chance that the actual flow will be below, this value. To describe the expected range around this 50% value, four other forecasts are provided, two smaller values (90% and 70% exceedance probability) and two larger values (30%, and 10% exceedance probability). For example, there is a 90% chance that the actual flow will be more than the 90% exceedance probability forecast. The others can be interpreted similarly.

The wider the spread among these values, the more uncertain the forecast. As the season progresses, forecasts become more accurate, primarily because a greater portion of the future weather conditions become known; this is reflected by a narrowing of the range around the 50% exceedance probability forecast. Users should take this uncertainty into consideration when making operational decisions by selecting forecasts corresponding to the level of risk they are willing to assume about the amount of water to be expected. If users anticipate receiving a lesser supply of water, or if they wish to increase their chances of having an adequate supply of water for their operations, they may want to base their decisions on the 90% or 70% exceedance probability forecasts, or something in between. On the other hand, if users are concerned about receiving too much water (for example, threat of flooding), they may want to base their decisions on the 30% or 10% exceedance probability forecasts, or something in between. Regardless of the forecast value users choose for operations, they should be prepared to deal with either more or less water. (Users should remember that even if the 90% exceedance probability forecast is used, there is still a 10% chance of receiving less than this amount.) By using the exceedance probability information, users can easily determine the chances of receiving more or less water.

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# STATE OF UTAH GENERAL OUTLOOK

Jan 1, 2007

## SUMMARY

It is snowing outside as we begin the water supply outlook reports for 2007, visibility is less than a quarter mile and the large fluffy flakes are piling up ready for the shovel. This is a very welcome sight even with the prospect of some hard labor later as conditions have been relatively dry for snow accumulation this season. October got the ball rolling in style with precipitation ranging from 116% to 242% of average which brought soil moisture values across the state up substantially. November wasn't too bad with precipitation in the 90% range but mild temperatures seemed to slow significant snow accumulation even at higher elevations. December continued the slide with precipitation near 69% of average and snowpacks that are below average. After a great start, soil moisture values have been steady to slightly decreasing over the past few months but for the most part are still in excellent condition. The Bear and the Weber Rivers are in particularly good shape at 67% and 62% of saturation. The Provo, Uintahs, southeast Utah and the Sevier are all between 40% and 50% of saturation. Southwest Utah has the lowest soil moisture condition at 33% of saturation, much less than the remainder of the state. Snowpacks range from 69% over southeastern Utah to near 80% of average on the Bear, Weber, Sevier and southwest Utah. The Provo watershed has snowpacks near 73% of normal. This is about 71% of the snowpack of last year. Precipitation for December ranged from 60% on the Provo Basin to 118% over southwest Utah. This brings the seasonal precipitation, (Oct-Dec) to 103%. Reservoir storage ranges from 34% on the Bear to 89% of capacity on the Provo. Statewide reservoir storage is at 67% of capacity, down 6% from last year. The Bear River basin has relatively poor reservoir storage at 34% but is significantly improved from years past. In general, most areas of the state have excellent reservoir carryover. General water supply conditions range from below to near average. Streamflow forecasts range from 52% to 91% of average. Surface Water Supply Indices range from 23% on the Bear River, to 84% on the west side of the Uintah Basin.

## SNOWPACK

January first snowpacks as measured by the NRCS SNOTEL system range from 69% in southeast Utah to 89% on the Uintahs. The Bear, Weber, Sevier and southwest Utah area all near 80% and the Provo is at 73% of average. To reach average conditions by April 1, we need 110% to 120% of average accumulation. The probability of getting this accumulation ranges between 25% and 42%. It is very early in the snow accumulation year and any outcome is possible.

## PRECIPITATION

Mountain precipitation during December was much below normal at 69% of average statewide. Precipitation was lowest over northern Utah (60%-64%) and highest over southern areas (67%-118%). This brings the seasonal accumulation (Oct-Dec) to 103% of average statewide and ranges from 92% on the Bear to 123% over southeastern Utah.

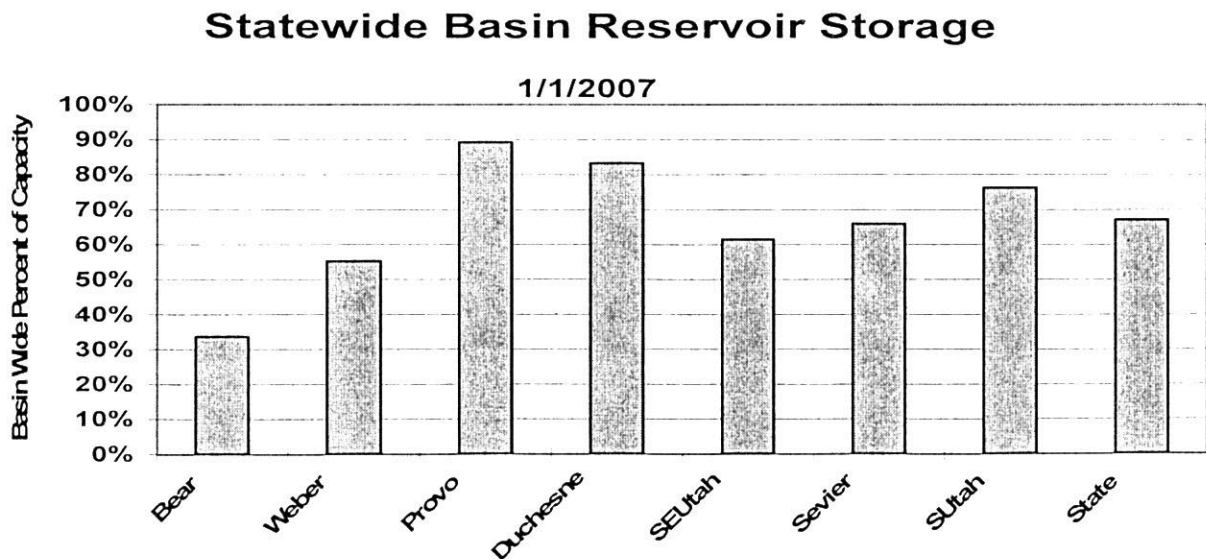
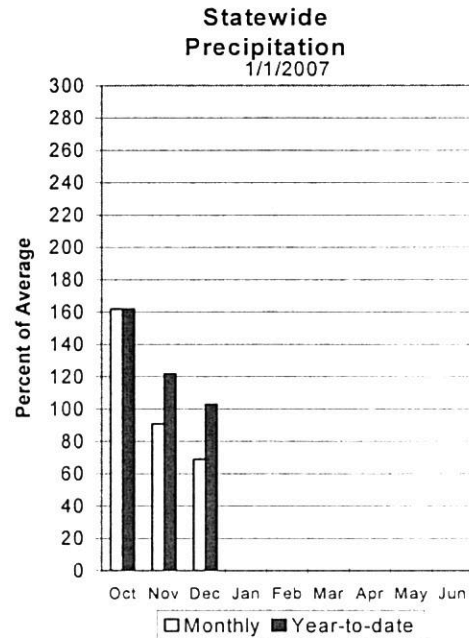
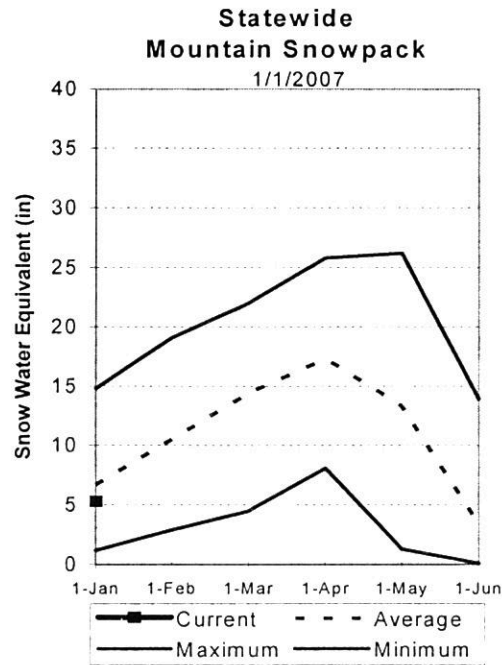
## RESERVOIRS

Storage in 41 of Utah's key irrigation reservoirs is at 67% of capacity. This is an increase of 2% from last year. Reservoirs across the State have been making steady gains in storage. Bear Lake really is the last reservoir to remain in an extremely low condition due to the prolonged drought.

## STREAMFLOW



Snowmelt streamflows are expected to have a wide range from much below average to near average across the state of Utah this year. Forecast streamflows range from 52% on the Beaver River to 91% of average for South Willow Creek nr Grantsville and Big Brush Creek abv Red Fleet. Most flows are forecast to be in the 60% to 85% range.





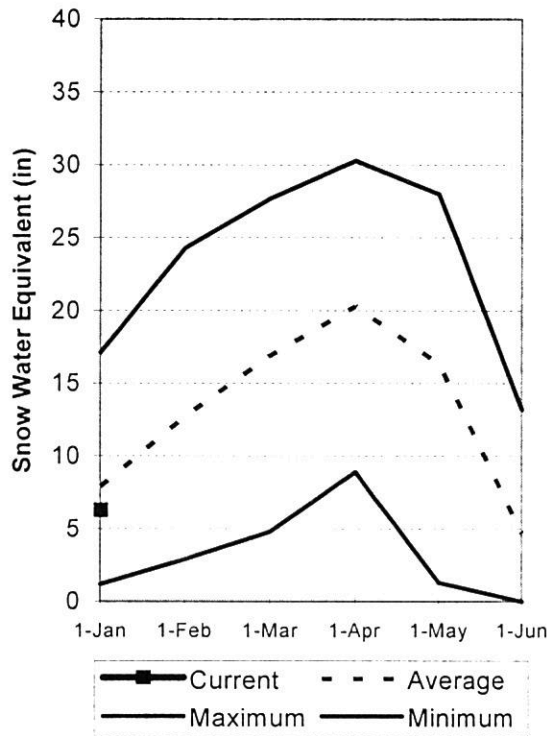
# Bear River Basin

January 1, 2007

Snowpacks on the Bear River Basin are below average at 80% of normal, about 57% of last year. Specific sites range from 58% to 100% of normal. December precipitation was much below average at 64%, which brings the seasonal accumulation (Oct-December) to 92% of average. Soil moisture levels in runoff producing areas are at 67% of saturation in the upper 2 feet of soil compared to 55% last year. This is due mainly to above average precipitation in October. Forecast streamflows range from average to above average (65%-88%) volumes this spring. Reservoir storage is low at 34% of capacity, 12% more than last year. The Surface Water Supply Index is at 23% for the Bear River, or 77% of years have had more total water available. Water supply conditions are much below normal due to low reservoir storage but have been improving over the last three years.

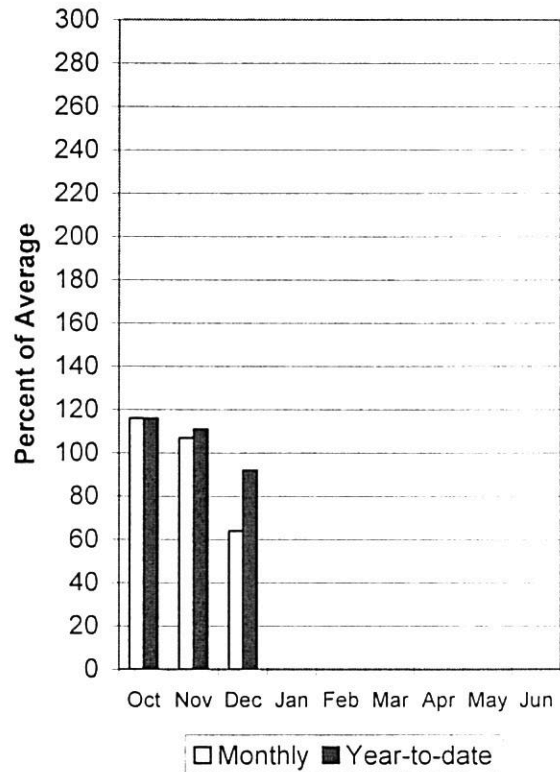
## Bear River Snowpack

1/1/2007



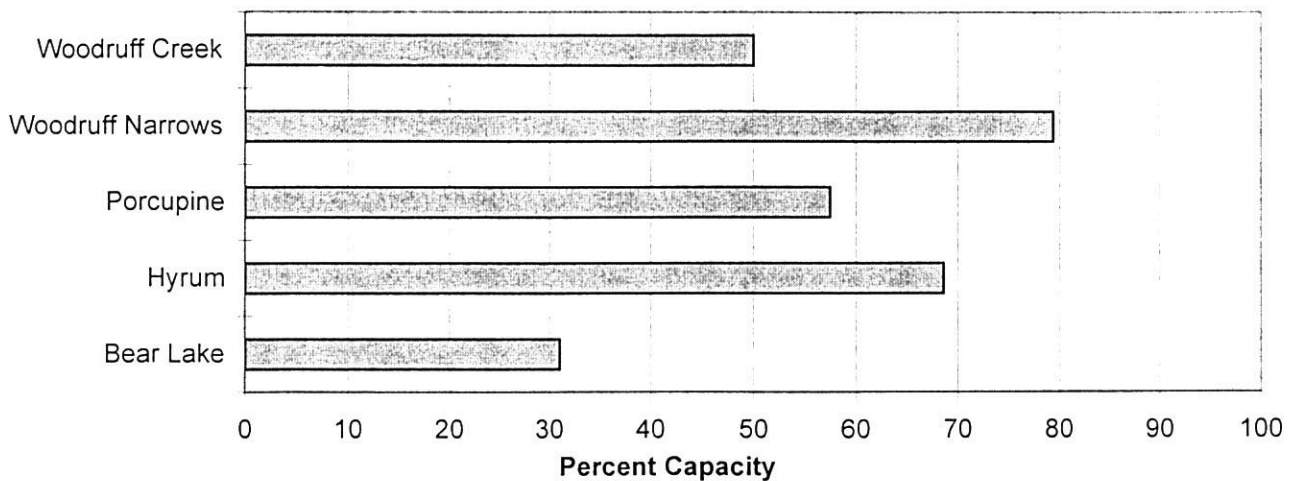
## Bear River Precipitation

1/1/2007



## Reservoir Storage

1/1/2007





BEAR RIVER BASIN  
Streamflow Forecasts - January 1, 2007

Forecast Point	Forecast Period	<<----- Drier ----- Future Conditions ----- Wetter ----->>						
		Chance Of Exceeding *						
		90% (1000AF)	70% (1000AF)	50% (1000AF)	(% AVG.)	30% (1000AF)	10% (1000AF)	30-Yr Avg. (1000AF)
Bear River nr UT-WY State Line	APR-JUL	84	107	100	89	139	162	113
Bear River ab Reservoir nr Woodruff	APR-JUL	89	126	110	81	176	213	136
Big Creek nr Randolph	APR-JUL	0.5	1.9	3.3	67	5.0	8.4	4.9
Smiths Fork nr Border	APR-JUL	51	71	85	83	103	131	103
Bear River at Stewart Dam	APR-JUL	71	116	165	71	195	265	234
Little Bear River at Paradise	APR-JUL	16.2	27	30	65	46	64	46
Logan R Abv State Dam Nr Logan	APR-JUL	46	69	87	69	106	139	126
Blacksmith Fk Abv Up&L Dam Nr Hyrum	APR-JUL	22	33	38	79	52	69	48

BEAR RIVER BASIN Reservoir Storage (1000 AF) - End of December					BEAR RIVER BASIN Watershed Snowpack Analysis - January 1, 2007			
Reservoir	Usable Capacity	*** Usable Storage ***			Watershed	Number of Data Sites	This Year as % of	
		This Year	Last Year	Avg			Last Yr	Average
BEAR LAKE	1302.0	404.0	251.8	---	BEAR RIVER, UPPER (abv Ha	6	59	81
HYRUM	15.3	10.5	10.4	10.2	BEAR RIVER, LOWER (blw Ha	8	55	79
PORCUPINE	11.3	6.5	8.7	3.9	LOGAN RIVER	4	53	78
WOODRUFF NARROWS	57.3	45.5	30.0	23.6	RAFT RIVER	1	77	134
WOODRUFF CREEK	4.0	2.0	2.1	---	BEAR RIVER BASIN	14	57	80

\* 90%, 70%, 50%, 30%, and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table.

The average is computed for the 1971-2000 base period.

- (1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.  
(2) - The value is natural volume - actual volume may be affected by upstream water management.

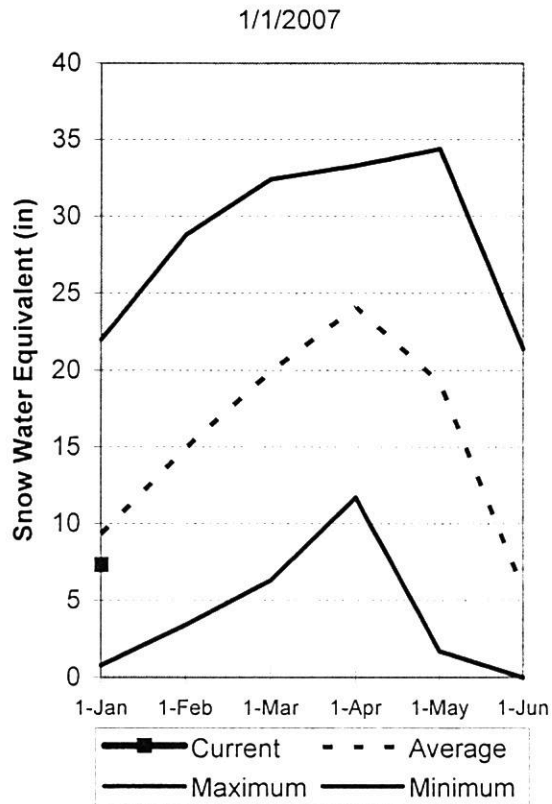


# Weber and Ogden River Basins

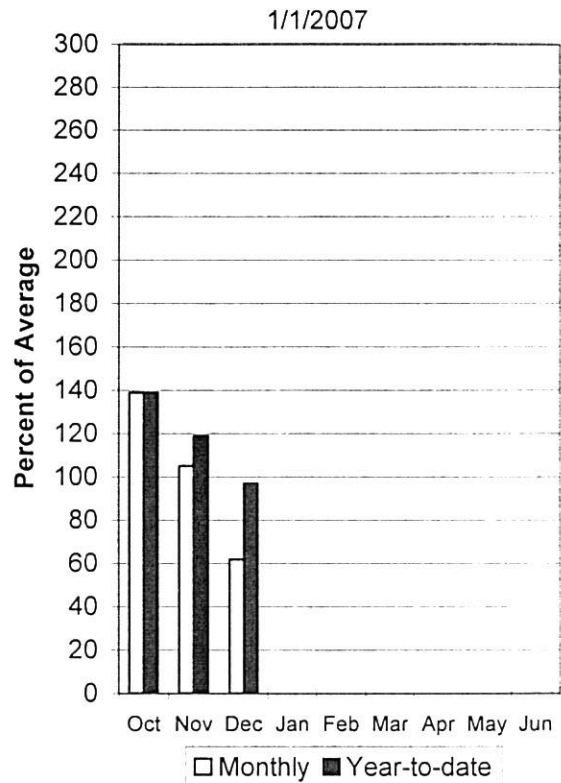
January 1, 2007

Snowpack on the Weber and Ogden Watersheds is below average at 79%, about 59% of last year. Individual sites range from 53% to 99% of average. December precipitation was much below average at 62% bringing the seasonal accumulation (Oct-December) to 97% of average. Soil moisture levels in runoff producing areas are at 62% of saturation in the upper 2 feet of soil compared to 52% last year. Streamflow forecasts range from 75% to 89% of average. Reservoir storage is at 55% of capacity, 15% lower than last year. The Surface Water Supply Index is at 32% for the Weber River and at 37% for the Ogden River. Overall water supply conditions are below normal.

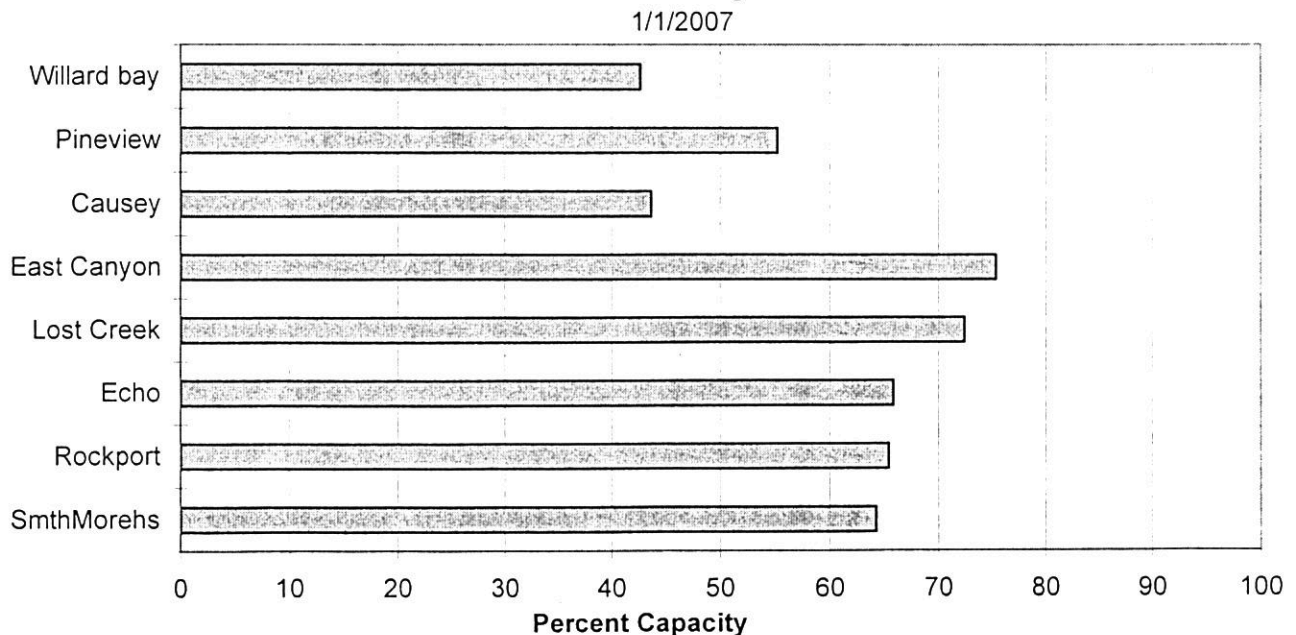
## Weber River Snowpack



## Weber River Precipitation



## Reservoir Storage



WEBER & OGDEN WATERSHEDS in Utah  
Streamflow Forecasts - January 1, 2007

Forecast Point	Forecast Period	<<----- Drier ----- Future Conditions ----- Wetter ----->>						30-Yr Avg. (1000AF)				
		90% (1000AF)		70% (1000AF)		Chance Of Exceeding * 50% (1000AF) (% AVG.)			30% (1000AF)		10% (1000AF)	
Smith & Morehouse Res inflow	APR-JUL	22	29	29	85	38	45	34				
Weber River nr Oakley	APR-JUL	82		105	85	139	163	123				
Rockport Resv Inflow Nr Wanship	APR-JUL	78	110	108	81	153	185	134				
Weber River nr Coalville	APR-JUL	79	113	111	81	159	193	137				
Chalk Creek at Coalville	APR-JUL	19.4	31	40	89	50	67	45				
Echo Reservoir inflow	APR-JUL	121	161	145	81	217	257	179				
Lost Creek Reservoir inflow	APR-JUL	5.0	9.3	14.0	80	17.3	25	17.6				
East Canyon Reservoir inflow	APR-JUL	10.6	18.1	24	77	31	44	31				
Weber River at Gateway	APR-JUL	233	316	285	80	428	510	355				
SF Ogden River nr Huntsville	APR-JUL	25	38	48	75	59	78	64				
Pineview Reservoir inflow	APR-JUL	58	92	100	75	137	171	133				
Wheeler Creek nr Huntsville	APR-JUL	2.0	3.5	4.7	75	6.2	8.6	6.3				

WEBER & OGDEN WATERSHEDS in Utah  
Reservoir Storage (1000 AF) - End of December

WEBER & OGDEN WATERSHEDS in Utah  
Watershed Snowpack Analysis - January 1, 2007

Reservoir	Usable Capacity	*** Usable Storage ***			Watershed	Number of Data Sites	This Year as % of	
		This Year	Last Year	Avg			Last Yr	Average
CAUSEY	7.1	3.1	3.3	2.8	OGDEN RIVER	4	55	68
EAST CANYON	49.5	37.3	35.1	34.9	WEBER RIVER	9	62	85
ECHO	73.9	48.6	50.0	47.9	WEBER & OGDEN WATERSHEDS	13	60	79
LOST CREEK	22.5	16.3	15.3	14.1				
PINEVIEW	110.1	60.8	52.3	52.9				
ROCKPORT	60.9	39.8	38.1	36.2				
WILLARD BAY	215.0	91.7	181.3	147.7				

\* 90%, 70%, 50%, 30%, and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table.

The average is computed for the 1971-2000 base period.

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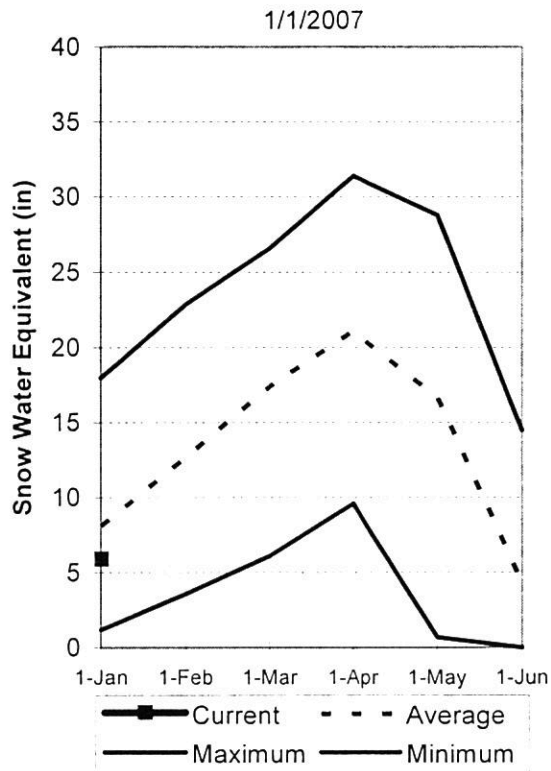


# Utah Lake, Jordan River & Tooele Valley Basins

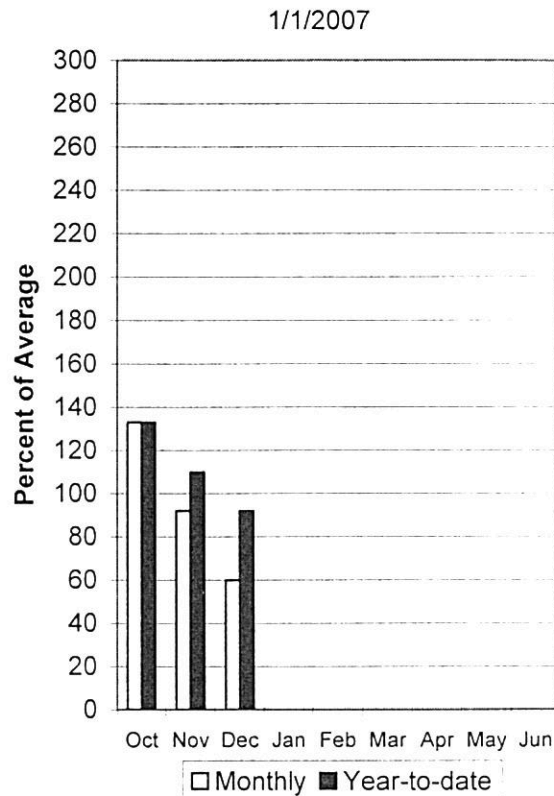
January 1, 2007

Snowpacks over these watersheds are below average at 73%, 59% of last year. Individual sites range from 27% to 113% of average. December precipitation was much below average at 60%, bringing the seasonal accumulation (Oct-Dec) to 92% of average. Soil moisture levels in runoff producing areas are at 50% of saturation in the upper 2 feet of soil compared to 43% last year. Forecast streamflows range from 58% to 91% of average. Reservoir storage is at 89% of capacity, 5% more than last year. The Surface Water Supply Index is at 64%, or only 36 in 100 years would have more total water available. General water supply conditions are above average.

## Provo River Snowpack

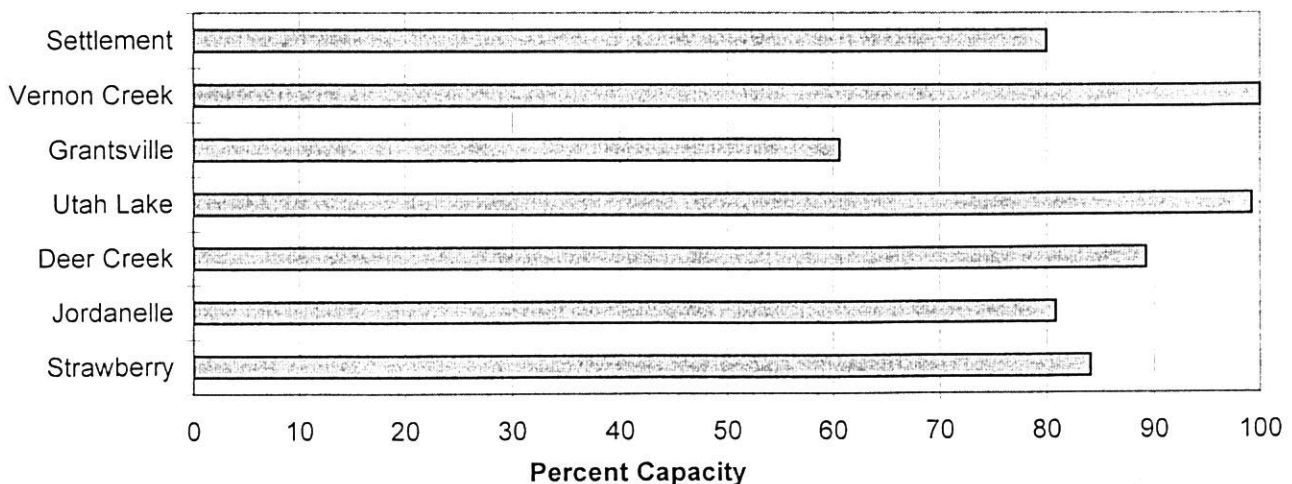


## Provo River Precipitation



## Reservoir Storage

1/1/2007



UTAH LAKE, JORDAN RIVER & TOOELE VALLEY  
Streamflow Forecasts - January 1, 2007

Forecast Point	Forecast Period	<<===== Drier ===== Future Conditions ===== Wetter =====>>						30-Yr Avg. (1000AF)
		Chance Of Exceeding *						
		90% (1000AF)	70% (1000AF)	50% (1000AF)	(% AVG.)	30% (1000AF)	10% (1000AF)	
Spanish Fork River nr Castilla	APR-JUL	24	45	55	71	84	121	77
Provo River nr Woodland	APR-JUL	0.0	0.0	90	87	14.0	34	103
Provo River nr Hailstone	APR-JUL	59	80	95	87	114	143	109
Deer Creek Resv Inflow	APR-JUL	47	74	105	83	120	161	126
American Fk Abv Upper Powerplant	APR-JUL	12.0	19.4	25	78	32	44	32
Utah Lake inflow	APR-JUL	0.0	0.0	240	74	76	189	325
Little Cottonwood Ck nr SLC	APR-JUL	0.0	0.0	33	83	4.8	11.9	40
Big Cottonwood Ck nr SLC	APR-JUL	0.0	0.0	31	82	4.7	11.7	38
Mill Creek nr SLC	APR-JUL	2.9	4.1	5.1	73	6.1	7.9	7.0
Parley's Creek nr SLC	APR-JUL	4.9	8.7	12.0	72	15.5	22	16.7
Dell Fork nr SLC	APR-JUL	0.0	0.0	5.0	74	1.8	4.5	6.8
Emigration Creek nr SLC	APR-JUL	0.9	2.0	3.0	67	4.3	6.6	4.5
City Creek nr SLC	APR-JUL	3.9	5.7	7.2	83	8.8	11.4	8.7
Settlement Creek Abv Resv Nr Tooele		0.4	0.7	1.1	71	1.4	2.0	1.5
South Willow Creek nr Grantsville	APR-JUL	1.5	2.3	2.9	90	3.5	4.7	3.2

UTAH LAKE, JORDAN RIVER & TOOELE VALLEY  
Reservoir Storage (1000 AF) - End of December

UTAH LAKE, JORDAN RIVER & TOOELE VALLEY  
Watershed Snowpack Analysis - January 1, 2007

Reservoir	Usable Capacity	*** Usable Storage ***			Watershed	Number of Data Sites	This Year as % of	
		This Year	Last Year	Avg			Last Yr	Average
DEER CREEK	149.7	133.6	110.7	102.0	PROVO RIVER & UTAH LAKE	7	53	66
GRANTSVILLE	3.3	2.0	1.8	1.6	PROVO RIVER	4	49	65
SETTLEMENT CREEK	1.0	0.8	0.8	0.5	JORDAN RIVER & GREAT SALT	6	56	76
STRAWBERRY-ENLARGED	1105.9	930.0	836.0	640.0	TOOELE VALLEY WATERSHEDS	3	100	82
UTAH LAKE	870.9	864.0	841.1	756.5	UTAH LAKE, JORDAN RIVER &	16	59	73
VERNON CREEK	0.6	0.6	0.5	---				

\* 90%, 70%, 50%, 30%, and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table.

The average is computed for the 1971-2000 base period.

- (1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.  
(2) - The value is natural volume - actual volume may be affected by upstream water management.



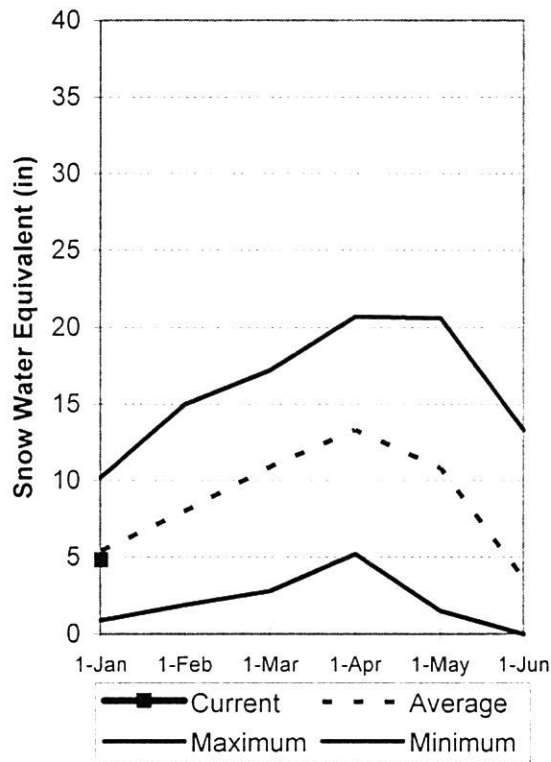
# **Uintah Basin and Dagget SCD's**

**January 1, 2007**

Snowpacks across the Uintah Basin and North Slope areas are below average at 89%, which is 83% of last year. The North Slope ranges from 62% to 141% and the Uintah Basin ranges from 69% to 101% of average. Precipitation during December was much below average at 64% bringing the seasonal accumulation (Oct-Dec) to 106% of average. Soil moisture values in runoff producing areas are at 44% of saturation in the upper 2 feet of soil compared to 35% last year. Reservoir storage is at 83% of capacity, 6% more than last year. The Surface Water Supply Index for the western area is 84% and for the eastern area it is 55% indicating above normal conditions on the west side and slightly above for the eastern area. Streamflow forecasts range from 76% to 91% of average. General water supply conditions range from above to near average from west to east with the excellent reservoir carryover.

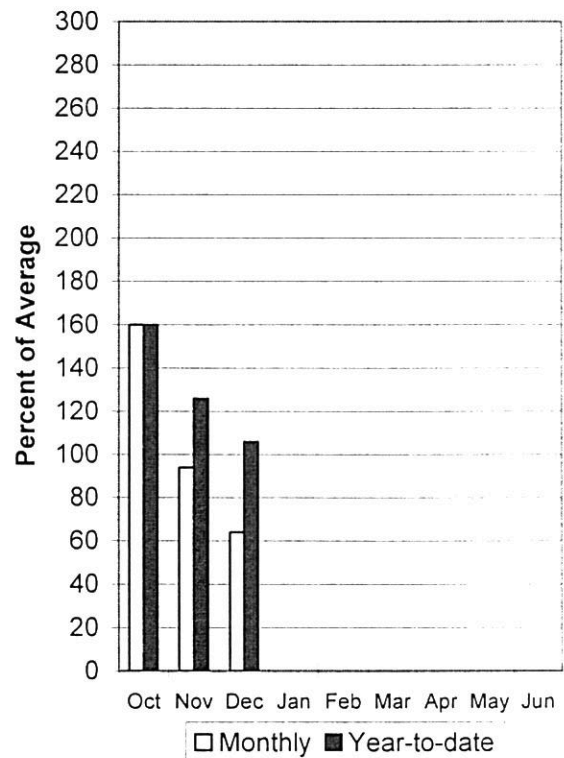
**Uinta Snowpack**

1/1/2007



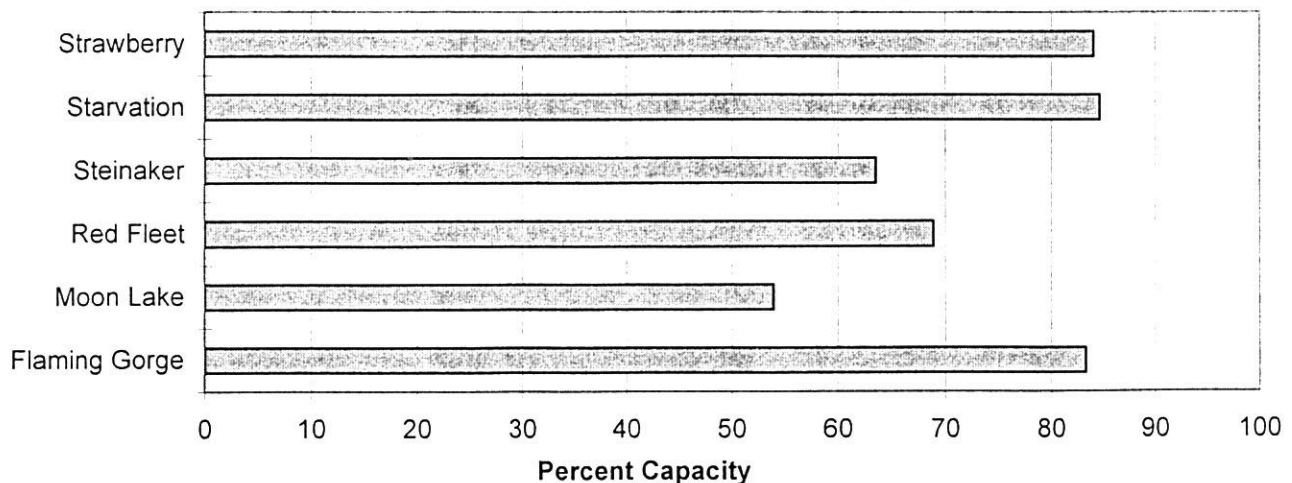
**Uinta Precipitation**

1/1/2007



**Reservoir Storage**

1/1/2007



UINTAH BASIN & DAGGET SCD'S  
Streamflow Forecasts - January 1, 2007

Forecast Point	Forecast Period	<<----- Drier ----- Future Conditions ----- Wetter ----->>						30-Yr Avg. (1000AF)
		Chance Of Exceeding *						
		90% (1000AF)	70% (1000AF)	50% (1000AF)	(% AVG.)	30% (1000AF)	10% (1000AF)	
Blacks Fork nr Robertson	APR-JUL	53	70	83	87	97	119	95
EF of Smiths Fork nr Robertson	APR-JUL	14.8	20	24	83	28	35	29
Flaming Gorge Reservoir Inflow (2)	APR-JUL	486	717	900	76	1103	1440	1190
Big Brush Ck abv Red Fleet Resv	APR-JUL	10.9	15.5	19.0	91	23	29	21
Ashley Creek nr Vernal	APR-JUL	26	38	47	90	57	74	52
WF Duchesne River nr Hanna (2)	APR-JUL	11.3	16.2	20	83	24	31	24
Duchesne R nr Tabiona (2)	APR-JUL	49	70	86	82	104	133	105
Upper Stillwater Resv Inflow	APR-JUL	49	63	73	89	84	102	82
Rock Ck nr Mountain Home (2)	APR-JUL	53	68	80	90	93	113	89
Duchesne R abv Knight Diversion (2)	APR-JUL	101	134	160	85	188	233	188
Strawberry R nr Soldier Springs (2)	APR-JUL	18.8	36	50	85	67	96	59
Currant Creek Reservoir Inflow (2)	APR-JUL	6.8	14.3	21	84	29	43	25
Strawberry R nr Duchesne (2)	APR-JUL	39	70	97	80	128	181	121
Lake Fork River Moon Lake Inflow	APR-JUL	42	54	62	91	71	86	68
Yellowstone River nr Altonah	APR-JUL	34	45	54	87	64	79	62
Duchesne R at Myton (2)	APR-JUL	77	149	210	81	282	407	260
Whiterocks near Whiterocks	APR-JUL	29	41	50	89	60	76	56
Duchesne R nr Randlett (2)	APR-JUL	95	183	260	80	350	507	324

UINTAH BASIN & DAGGET SCD'S  
Reservoir Storage (1000 AF) - End of December

UINTAH BASIN & DAGGET SCD'S  
Watershed Snowpack Analysis - January 1, 2007

Reservoir	Usable Capacity	*** Usable Storage ***			Watershed	Number of Data Sites	This Year as % of	
		This Year	Last Year	Avg			Last Yr	Average
FLAMING GORGE	3749.0	3124.0	3082.0	3027.0	UPPER GREEN RIVER in UTAH	6	110	97
MOON LAKE	49.5	26.7	29.2	26.1	ASHLEY CREEK	2	155	83
RED FLEET	25.7	17.7	21.2	17.5	BLACK'S FORK RIVER	2	80	94
STEINAKER	33.4	21.2	27.6	20.0	SHEEP CREEK	1	236	114
STARVATION	165.3	140.0	135.4	128.6	DUCHESNE RIVER	11	75	85
STRAWBERRY-ENLARGED	1105.9	930.0	836.0	640.0	LAKE FORK-YELLOWSTONE CRE	4	74	89
					STRAWBERRY RIVER	4	70	77
					UINTAH-WHITEROCKS RIVERS	2	95	88
					UINTAH BASIN & DAGGET SCD	17	83	89

\* 90%, 70%, 50%, 30%, and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table.

The average is computed for the 1971-2000 base period.

- (1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.  
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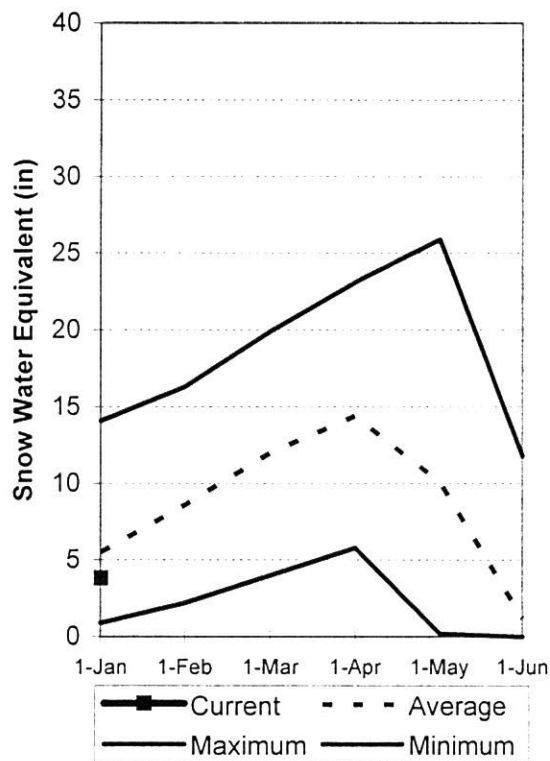
# Carbon, Emery, Wayne, Grand and San Juan Co.

## January 1, 2007

Snowpacks in this region are much below normal at 68% of average, about 75% of last year. Individual sites range from 32% to 108% of average, with the Abajo Mountains the driest in the region. Precipitation during December was much below average at 67%, bringing the seasonal accumulation (Oct-Dec) to 123% of normal. Soil moisture estimates in runoff producing areas are at 51% of saturation in the upper 2 feet of soil compared to 32% last year and down 3% from last month. Forecast streamflows range from 26% to 100% of average, somewhat higher than snowpack conditions alone would indicate due to high fall precipitation and healthy soil moisture conditions. Reservoir storage is at 62% of capacity, down 5% from last year. Surface Water Supply Indices for the area are: Price 70%, San Rafael area 53% and Moab 54%. General runoff and water supply conditions are near to above normal, due to good reservoir carryover.

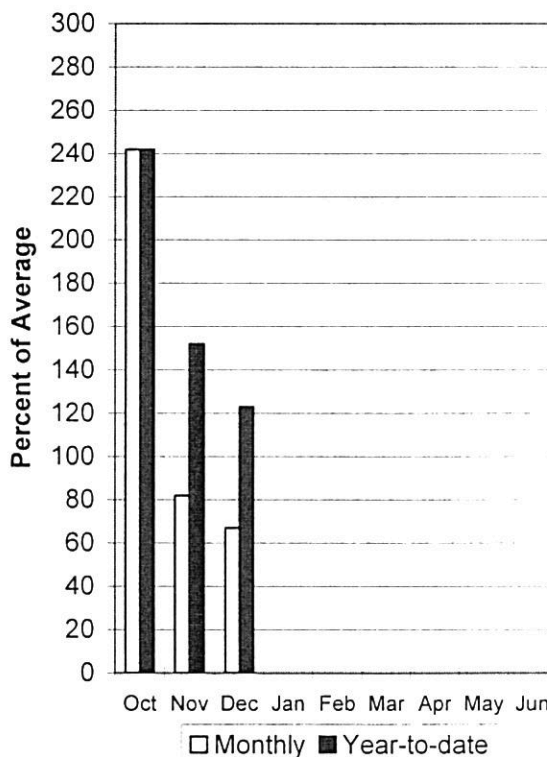
### Southeast Utah Snowpack

1/1/2007



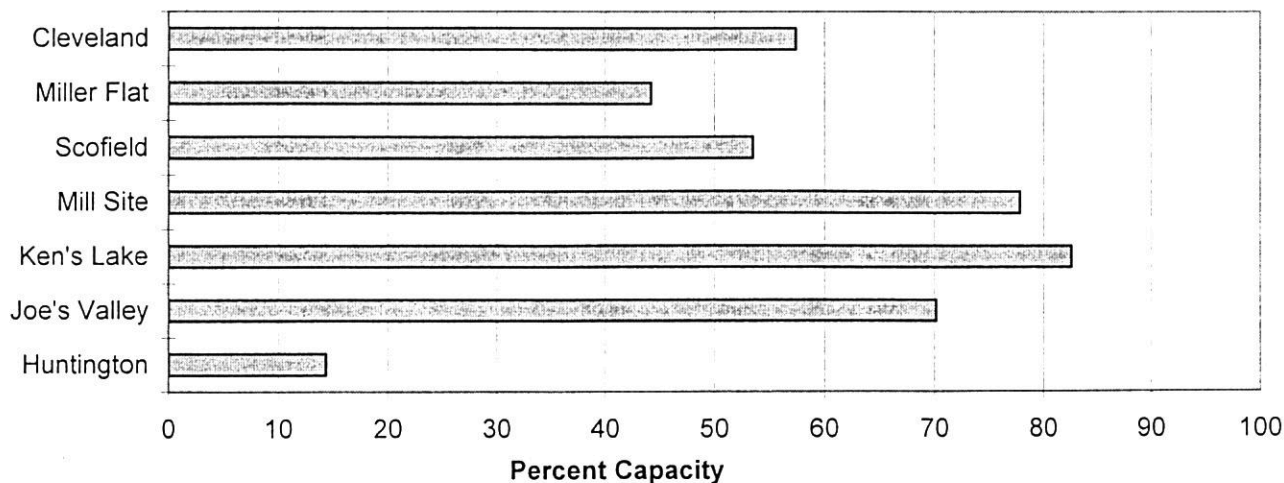
### Southeast Utah Precipitation

1/1/2007



### Reservoir Storage

1/1/2007



CARBON, EMERY, WAYNE, GRAND, & SAN JUAN Co.  
Streamflow Forecasts - January 1, 2007

Forecast Point	Forecast Period	<----- Drier -----		Future Conditions		----- Wetter ----->>		30-Yr Avg. (1000AF)
		=====		Chance Of Exceeding *		=====		
		90% (1000AF)	70% (1000AF)	50% (1000AF)	(% AVG.)	30% (1000AF)	10% (1000AF)	
Gooseberry Creek nr Scofield	APR-JUL	5.6	8.1	10.0	84	12.2	15.7	11.9
Price River near Scofield Reservoir	APR-JUL	15.6	30	39	87	49	62	45
White River blw Tabbyune Creek	APR-JUL	4.3	8.4	12.0	69	16.2	24	17.3
Green River at Green River, UT (2)	APR-JUL	980	1910	2550	80	3190	4120	3170
Huntington Ck Inflow to Electric Lk	APR-JUL	5.7	9.5	12.6	80	16.1	22	15.7
Huntington Ck nr Huntington	APR-JUL	15.2	29	39	80	49	63	49
Joe's Valley Resv Inflow	APR-JUL	26	38	48	83	59	76	58
Ferron Ck (Upper Station) nr Ferron	APR-JUL	20	28	34	87	41	52	39
Colorado River Near Cisco (2)	APR-JUL	2290	3700	4650	100	5600	7010	4650
Mill Creek at Sheley Tunnel nr Moab	APR-JUL	2.2	3.4	4.5	90	5.8	8.1	5.0
Seven Mile Ck nr Fish Lake	APR-JUL	4.3	5.8	7.0	100	8.3	10.3	7.0
Muddy Creek nr Emery	APR-JUL	9.7	14.4	18.0	91	22	29	19.9
North Ck ab R.S. nr Monticello	MAR-JUL	0.0	0.1	0.2	26	0.4	0.8	0.8
South Ck ab Lloyd's Res nr Monticell	MAR-JUL	0.0	0.2	0.5	33	0.8	1.7	1.4
Recapture Ck Bl Johnson Ck nr Blandi	MAR-JUL	0.3	1.2	2.3	46	4.0	7.7	5.0
San Juan River near Bluff (2)	APR-JUL	410	820	1100	89	1380	1790	1230

CARBON, EMERY, WAYNE, GRAND, & SAN JUAN Co.  
Reservoir Storage (1000 AF) - End of December

CARBON, EMERY, WAYNE, GRAND, & SAN JUAN Co.  
Watershed Snowpack Analysis - January 1, 2007

Reservoir	Usable Capacity	*** Usable Storage ***			Watershed	Number of Data Sites	This Year as % of	
		This Year	Last Year	Avg			Last Yr	Average
HUNTINGTON NORTH	4.2	0.6	2.4	2.4	PRICE RIVER	3	53	60
JOE'S VALLEY	61.6	43.2	43.4	41.0	SAN RAFAEL RIVER	3	64	72
KEN'S LAKE	2.3	1.9	2.0	1.0	MUDDY CREEK	1	64	69
MILL SITE	16.7	13.0	9.2	75.0	FREMONT RIVER	3	148	84
SCOFIELD	65.8	35.2	43.8	32.7	LASAL MOUNTAINS	1	100	81
					BLUE MOUNTAINS	1	225	32
					WILLOW CREEK	1	233	72
					CARBON, EMERY, WAYNE, GRA	13	75	68

\* 90%, 70%, 50%, 30%, and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table.

The average is computed for the 1971-2000 base period.

- (1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.  
 (2) - The value is natural volume - actual volume may be affected by upstream water management.



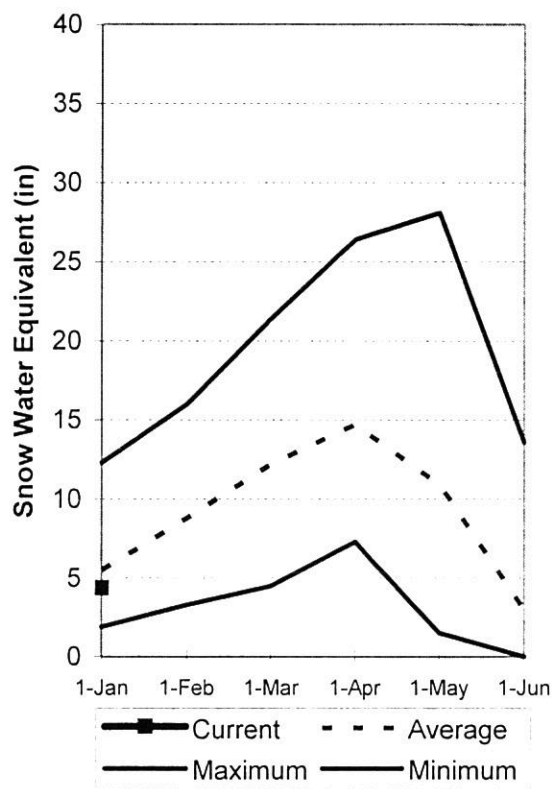
# Sevier and Beaver River Basins

Jan 1, 2007

Snowpacks on the Sevier River Basin are below normal at 80% of average, about 108% of last year. Individual sites range from 60% to 150% of average. Precipitation during December was slightly below average at 88% of normal, bringing the seasonal accumulation (Oct-Dec) to 117% of average. Soil moisture estimates in runoff producing areas are at 46% of saturation (Sevier) in the upper 2 feet of soil compared to 44% last year. Streamflow forecasts range from 52% to 80% of average. Reservoir storage is at 66% of capacity, 11% less than last year. Surface Water Supply Indices are: Upper Sevier 71%, Lower Sevier 57% and Beaver 48%. Water supply conditions range from near to above average due to reservoir storage.

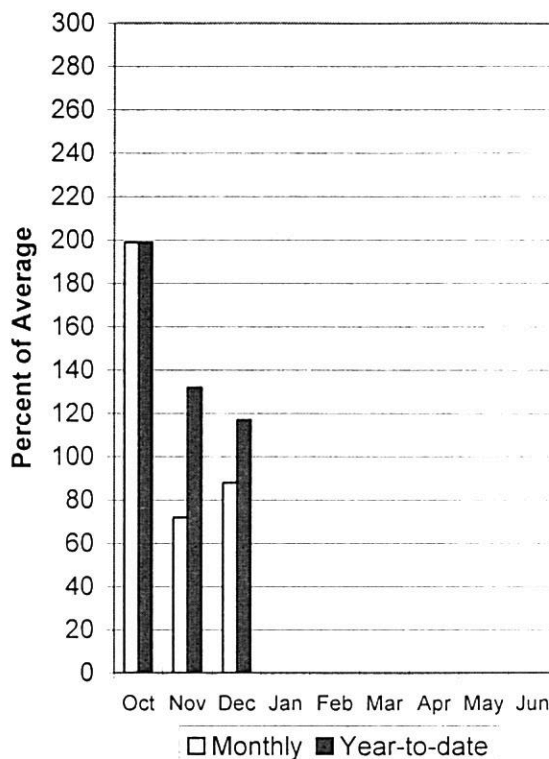
## Sevier River Snowpack

1/1/2007



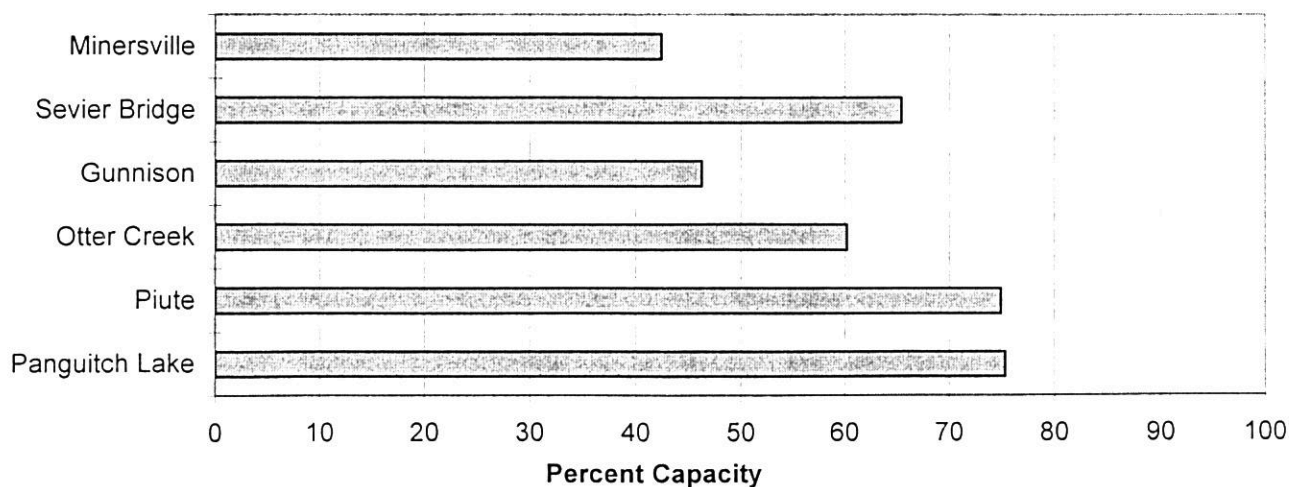
## Sevier River Precipitation

1/1/2007



## Reservoir Storage

1/1/2007



SEVIER & BEAVER RIVER BASINS  
Streamflow Forecasts - January 1, 2007

Forecast Point	Forecast Period	<<===== Drier =====		Future Conditions		===== Wetter =====>>		30-Yr Avg. (1000AF)
		90%	70%	50%		30%	10%	
		(1000AF)	(1000AF)	(1000AF)	(% AVG.)	(1000AF)	(1000AF)	
Sevier River at Hatch	APR-JUL	0.0	0.0	44	80	16.5	41	55
Sevier River nr Kingston	APR-JUL	39	61	71	80	98	130	89
EF Sevier R nr Kingston	APR-JUL	10.9	22	30	79	44	64	38
Sevier R blw Piute Dam	APR-JUL	13.0	39	105	83	98	158	126
Clear Creek Abv Diversions Nr Sevier	APR-JUL	9.7	15.2	19.7	90	25	33	22
Salina Creek at Salina	APR-JUL	3.4	9.2	15.0	76	22	35	19.7
Manti Ck Blw Dugway Ck Nr Manti	APR-JUL	9.9	13.8	13.2	72	20	26	18.3
Sevier R nr Gunnison	APR-JUL	0.0	0.0	220	79	84	209	280
Chicken Creek nr Levan	APR-JUL	0.5	1.7	2.9	64	4.4	7.2	4.5
Oak Creek nr Oak City	APR-JUL	0.4	0.9	1.3	80	1.8	2.7	1.7
Beaver River nr Beaver	APR-JUL	11.4	15.8	20	74	24	31	27
Minersville Reservoir inflow	APR-JUL	0.5	2.7	8.6	52	8.7	15.2	16.6

SEVIER & BEAVER RIVER BASINS Reservoir Storage (1000 AF) - End of December					SEVIER & BEAVER RIVER BASINS Watershed Snowpack Analysis - January 1, 2007			
Reservoir	Usable Capacity	*** Usable Storage ***			Watershed	Number of Data Sites	This Year as % of	
		This Year	Last Year	Avg			Last Yr	Average
GUNNISON	20.3	9.4	11.6	10.9	UPPER SEVIER RIVER (south	8	156	83
MINERSVILLE (RkyFd)	23.3	9.9	18.2	12.7	EAST FORK SEVIER RIVER	3	156	84
OTTER CREEK	52.5	31.6	41.5	32.8	SOUTH FORK SEVIER RIVER	5	157	82
PIUTE	71.8	53.8	50.7	42.1	LOWER SEVIER RIVER (inclu	6	88	81
SEVIER BRIDGE	236.0	154.4	189.3	148.9	BEAVER RIVER	2	89	71
PANGUITCH LAKE	22.3	16.8	17.4	108.0	SEVIER & BEAVER RIVER BAS	16	110	80

\* 90%, 70%, 50%, 30%, and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table.

The average is computed for the 1971-2000 base period.

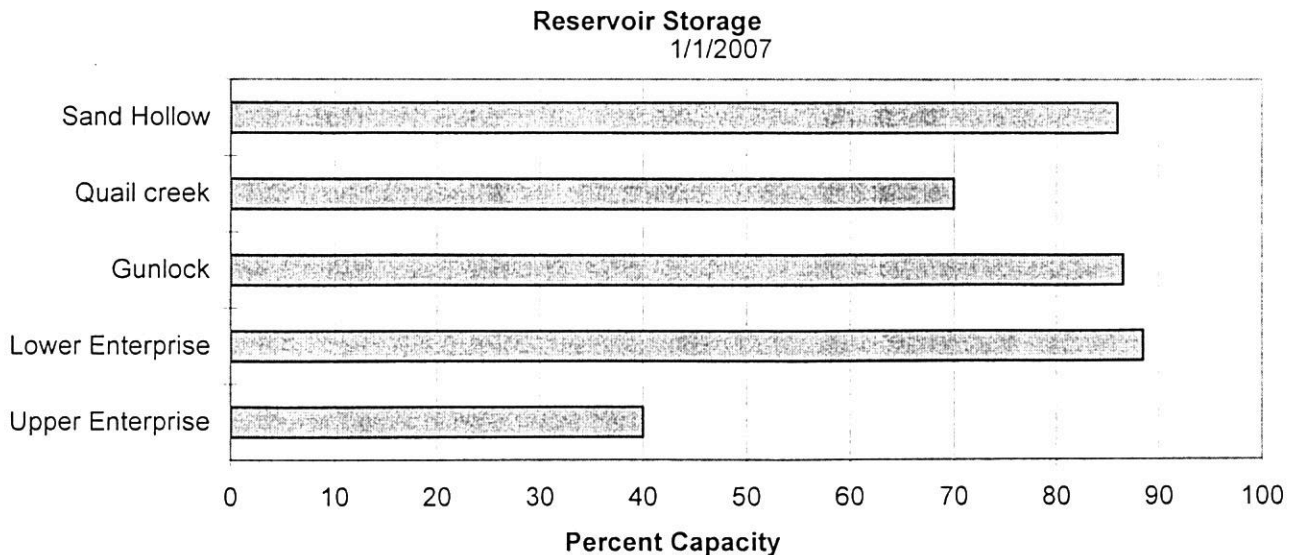
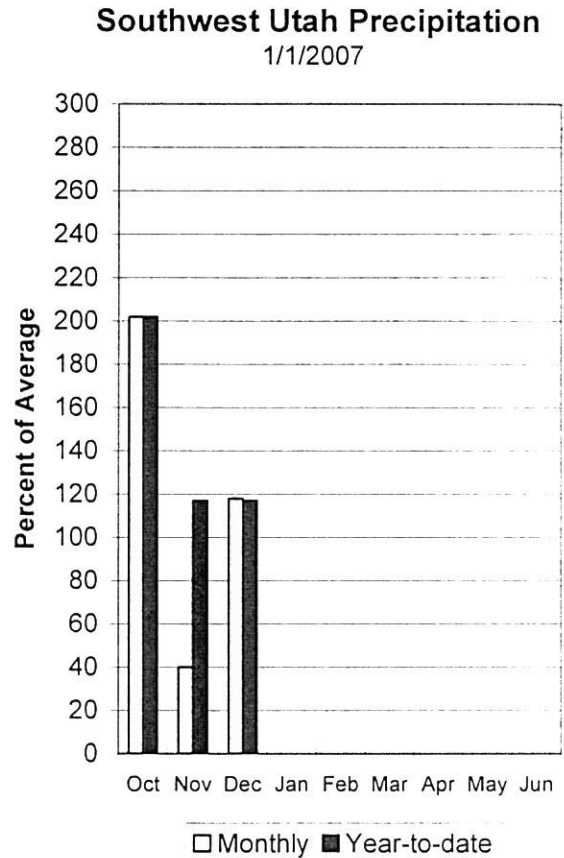
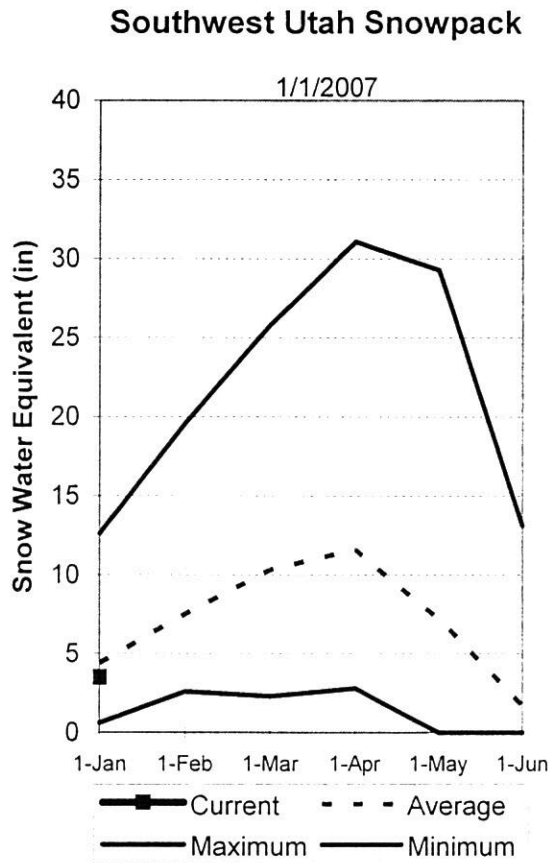
- (1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.  
(2) - The value is natural volume - actual volume may be affected by upstream water management.



# E. Garfield, Kane, Washington, & Iron Co.

January 1, 2007

Snowpacks in this region are below normal at 80% of average, which is 198% of last year. Individual sites range from 60% to 150% of average. Precipitation was above normal during December at 118% of average, bringing the seasonal accumulation (Oct-Dec) to 117% of normal. Soil moisture estimates in runoff producing areas are at 33% of saturation in the upper 2 feet of soil compared to 27% last year. Forecast streamflows range from 70% to 75% of average. Reservoir storage is at 76% of capacity, 10% less than last year. The Surface Water Supply Index is at 67%, indicating slightly above normal water availability.



E. GARFIELD, KANE, WASHINGTON, & IRON Co.  
Streamflow Forecasts - January 1, 2007

Forecast Point	Forecast Period	<<----- Drier ----->>		Future Conditions ----->>		Wetter ----->>		30-Yr Avg. (1000AF)
		Chance Of Exceeding *						
		90% (1000AF)	70% (1000AF)	50% (1000AF)	(% AVG.)	30% (1000AF)	10% (1000AF)	
Lake Powell Inflow (2)	APR-JUL	3600	5740	7200	91	8660	10800	7930
Virgin River at Virgin	APR-JUL	15.3	33	48	75	66	99	64
Virgin River near Hurricane	APR-JUL	10.0	31	52	75	78	127	69
Santa Clara River nr Pine Valley	APR-JUL	0.8	2.4	4.1	75	6.2	10.0	5.5
Coal Creek nr Cedar City	APR-JUL	6.7	11.7	18.0	93	21	29	19.3

E. GARFIELD, KANE, WASHINGTON, & IRON Co.  
Reservoir Storage (1000 AF) - End of December

E. GARFIELD, KANE, WASHINGTON, & IRON Co.  
Watershed Snowpack Analysis - January 1, 2007

Reservoir	Usable Capacity	*** Usable Storage ***			Watershed	Number of Data Sites	This Year as % of	
		This Year	Last Year	Avg			Last Yr	Average
GUNLOCK	10.4	9.0	10.8	5.7	VIRGIN RIVER	5	182	80
LAKE POWELL	24322.0	12103.0	11604.0	---	PAROWAN	2	134	73
QUAIL CREEK	40.0	28.0	34.3	23.9	ENTERPRISE TO NEW HARMONY	2	183	67
UPPER ENTERPRISE	10.0	4.0	9.0	---	COAL CREEK	2	149	75
LOWER ENTERPRISE	2.6	2.3	0.0	26.7	ESCALANTE RIVER	2	215	87
					E. GARFIELD, KANE, WASHIN	9	186	80

\* 90%, 70%, 50%, 30%, and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table.

The average is computed for the 1971-2000 base period.

- (1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.  
(2) - The value is natural volume - actual volume may be affected by upstream water management.

**UTAH  
SURFACE WATER SUPPLY INDEX**

**Snow Surveys NRCS USDA**

**Basin or Region SWSI/% Percentile Years with Similar SWSI**

**1-Jan-07**

Bear River	-2.26	23%	02,06,90,62
Ogden River	-1.07	37%	70,66,76,94
Weber River	-1.52	32%	00,89,94,79
Provo	1.96	73%	74,96,80,69
West Uintah Basin	2.83	84%	01,00,99,97
East Uintah Basin	0.43	55%	00,06,97,87
Price River	1.67	70%	66,67,79,00
San Rafael	0.23	53%	00,74,05,82
Moab	0.30	54%	06,94,97,05
Upper Sevier River	1.76	71%	68,82,88,86
Lower Sevier River	0.60	57%	00,75,81,70
Beaver River	-0.17	48%	67,71,96,78
Virgin River	1.39	67%	94,00,06,92

Snow Surveys

SWSI Scale: -4 to 4

Percentile: 0 -

100%

245 N Jimmy Doolittle Rd  
Salt Lake City, UT  
(801) 524-5213

## What is a Surface Water Supply Index?

The Surface Water Supply Index (SWSI) is a predictive indicator of total surface water availability within a watershed for the spring and summer water use seasons. The index is calculated by combining pre-runoff reservoir storage (carryover) with forecasts of spring and summer streamflow which are based on current snowpack and other hydrologic variables. SWSI values are scaled from +4.1 (abundant supply) to -4.1 (extremely dry) with a value of zero (0) indicating median water supply as compared to historical analysis. SWSI's are calculated in this fashion to be consistent with other hydroclimatic indicators such as the Palmer Drought Index and the Precipitation index.

Utah Snow Surveys has also chosen to display the SWSI as a PERCENT CHANCE OF NON-EXCEEDANCE. While this is a very cumbersome name, it has the simplest application. It can be best thought of as a simple scale of 1 to 99 with 1 being the drought of record (driest possible conditions) and 99 being the flood of record (wettest possible conditions) and a value of 50 representing average conditions. This rating scale is a percentile rating as well, for example a SWSI of 75% means that this years water supply is greater than 75% of all historical events and that only 25% of the time has it been exceeded. Conversely a SWSI of 10% means that 90% of historical events have been greater than this one and that only 10% have had less total water supply. This scale is far more intuitive for most people and is totally comparable between basins: a SWSI of 50% means the same relative ranking on watershed A as it does on watershed B, which may not be strictly true of the +4 to -4 scale.

For more information on the SWSI go to: [www.ut.nrcs.usda.gov/snow/](http://www.ut.nrcs.usda.gov/snow/) on the water supply page. The entire period of historical record for reservoir storage and streamflow is available.



## S N O W   C O U R S E   D A T A

JANUARY 2007

SNOW COURSE	ELEV.	DATE	SNOW DEPTH	WATER CONTENT	LAST YEAR	AVERAGE 71-00
AGUA CANYON SNOTEL	8900	1/01	12	2.7	1.4	2.9
ALTA CENTRAL	8800	12/29	42	11.5	19.4	16.5
BEAVER DAMS SNOTEL	8000	1/01	16	2.9	4.4	4.3
BEAVER DIVIDE SNOTEL	8280	1/01	19	3.5	8.4	4.7
BEN LOMOND PK SNOTEL	8000	1/01	28	9.0	19.0	14.5
BEN LOMOND TR SNOTEL	6000	1/01	16	4.5	9.9	8.5
BEVAN'S CABIN	6450				-	4.2
BIG FLAT SNOTEL	10290	1/01	28	6.3	6.5	7.6
BIRCH CROSSING	8100				-	2.8
BLACK FLAT-U.M. CK S	9400	1/01	16	2.9	4.0	3.8
BLACK'S FORK GS-EF	9340				-	3.3
BLACK'S FORK JUNCTN	8930				-	3.7
BOX CREEK SNOTEL	9800	1/01	22	4.9	4.3	5.3
BRIAN HEAD	10000				-	8.2
BRIGHTON SNOTEL	8750	1/01	30	8.2	13.7	10.9
BRIGHTON CABIN	8700	12/29	38	8.8	12.7	11.5
BROWN DUCK SNOTEL	10600	1/01	35	6.9	10.1	7.7
BRYCE CANYON	8000				-	2.1
BUCK FLAT SNOTEL	9800	1/01	23	5.0	8.9	7.2
BUCK PASTURE	9700				-	-
BUCKBOARD FLAT	9000				-	5.4
BUG LAKE SNOTEL	7950	1/01	27	6.2	10.4	8.3
BURT'S-MILLER RANCH	7900				-	2.2
CAMP JACKSON SNOTEL	8600	1/01	14	1.8	.8	5.6
CASCADE MOUNTAIN SNO	7770	1/01	23	5.1	9.2	-
CASTLE VALLEY SNOTEL	9580	1/01	17	3.0	2.8	4.9
CHALK CK #1 SNOTEL	9100	1/01	37	10.0	13.9	10.1
CHALK CK #2 SNOTEL	8200	1/01	29	6.6	6.5	6.7
CHALK CREEK #3	7500				-	3.5
CHEPETA SNOTEL	10300	1/01	29	5.4	5.5	6.0
CLAYTON SPRINGS SNTL	10000	1/01	20	3.9	2.3	-
CLEAR CK RIDG #1 SNT	9200	1/01	21	4.5	8.9	7.7
CLEAR CK RIDG #2 SNT	8000	1/01	24	4.7	6.7	6.0
CORRAL	8200				-	-
CURRENT CREEK SNOTEL	8000	1/01	15	3.1	5.7	4.2
DANIELS-STRAWBERRY S	8000	1/01	22	5.0	7.8	6.5
DILL'S CAMP SNOTEL	9200	1/01	22	3.8	5.9	5.5
DONKEY RESERVOIR SNO	9800	1/01	23	4.3	1.6	4.0
DRY BREAD POND SNTL	8350	1/01	28	6.2	10.5	9.1
DRY FORK SNOTEL	7160	1/01	24	5.7	6.0	6.9
EAST WILLOW CREEK SN	8250	1/01	14	2.1	.9	2.9
FARMINGTON U. SNOTEL	8000	1/01	42	11.0	18.9	13.0
FARMINGTON LOWER SC	6950				-	10.4
FARMINGTON L. SNOTEL	6780	1/01	24	6.3	10.2	-
FARNSWORTH LK SNOTEL	9600	1/01	38	8.4	5.7	8.0
FISH LAKE	8700				-	2.9
FIVE POINTS LAKE SNO	10920	1/01	28	7.1	8.5	7.0
G.B.R.C. HEADQUARTER	8700				-	-
G.B.R.C. MEADOWS	10000				-	9.7
GARDEN CITY SUMMIT	7600				-	6.5
GARDNER PEAK SNOTEL	8350	1/01	14	2.9	2.4	-
GEORGE CREEK	8840				-	-
GOOSEBERRY R.S.	8400				-	5.1
GOOSEBERRY R.S. SNTL	7900	1/01	17	3.0	3.7	3.6
GUTZ PEAK SNOTEL	6820	1/01	7	1.7	.4	-
HARDS CRABBLE SNOTEL	7250	1/01	24	6.4	11.7	6.5
HARRIS FLAT SNOTEL	7700	1/01	6	1.5	.5	2.5
HAYDEN FORK SNOTEL	9100	1/01	24	5.0	9.7	6.3
HENRY'S FORK	10000				-	-
HEWINTA SNOTEL	9500	1/01	24	4.0	5.3	4.1
HICKERSON PARK SNTL	9100	1/01	23	3.3	1.4	2.9
HIDDEN SPRINGS	5500	12/27	6	1.2	3.1	.2
HOBBLE CREEK SUMMIT	7420				-	6.1
HOLE-IN-ROCK SNOTEL	9150	1/01	25	3.8	3.7	2.7
HORSE RIDGE SNOTEL	8260	1/01	30	6.9	13.2	9.3
HUNTINGTON-HORSESHOE	9800				-	9.7
INDIAN CANYON SNOTEL	9100	1/01	19	4.2	3.9	4.4
JOHNSON VALLEY	8850				-	2.7

SNOW COURSE	ELEV.	DATE	SNOW DEPTH	WATER CONTENT	LAST YEAR	AVERAGE 71-00
JONES CORRAL G.S.	9720				-	-
KILFOIL CREEK	7300				-	5.5
KILLYON CANYON	6300	12/27	8	1.4	4.8	5.1
KIMBERLY MINE SNOTEL	9300	1/01	25	5.5	3.9	6.0
KING'S CABIN SNOTEL	8730	1/01	20	3.1	2.4	5.0
KLONDIKE NARROWS	7400				-	7.5
KOLOB SNOTEL	9250	1/01	26	5.5	2.5	6.9
LAKEFORK #1 SNOTEL	10100	1/01	21	4.8	5.4	5.6
LAKEFORK BASIN SNTL	10900	1/01	33	6.7	10.6	8.2
LAKEFORK MOUNTAIN #3	8400				-	2.8
LAMBS CANYON	7400	12/28	30	6.6	7.3	7.4
LASAL MOUNTAIN LOWER	8800				-	3.8
LASAL MOUNTAIN SNTL	9850	1/01	15	3.8	3.8	4.7
LIGHTNING RIDGE SNTL	8220	1/01	25	6.2	10.9	-
LILY LAKE SNOTEL	9050	1/01	31	5.6	6.8	5.5
LITTLE BEAR LOWER	6000				-	4.3
LITTLE BEAR SNOTEL	6550	1/01	13	3.0	5.1	5.2
LITTLE GRASSY SNOTEL	6100	1/01	5	1.4	.4	2.1
LONG FLAT SNOTEL	8000	1/01	12	1.9	1.4	2.8
LONG VALLEY JCT. SNT	7500	1/01	12	2.7	.7	1.8
LOOKOUT PEAK SNOTEL	8200	1/01	34	9.1	16.5	9.9
LOST CREEK RESERVOIR	6130				-	2.0
LOUIS MEADOW SNOTEL	6700	1/01	26	7.3	11.4	-
MAMMOTH-COTTONWD SNT	8800	1/01	23	4.8	9.5	7.6
MERCHANT VALLEY SNTL	8750	1/01	17	2.9	3.8	5.4
MIDDLE CANYON	7000				-	5.9
MIDWAY VALLEY SNOTEL	9800	1/01	33	7.2	4.8	9.0
MILL CREEK	6950	12/28	28	6.1	7.3	8.3
MILL-D NORTH SNOTEL	8960	1/01	29	6.5	14.3	10.3
MILL-D SOUTH FORK	7400	12/27	27	6.2	10.4	8.6
MINING FORK SNOTEL	8000	1/01	25	6.2	6.8	5.5
MONTE CRISTO SNOTEL	8960	1/01	37	9.5	14.0	11.0
MOSBY MTN. SNOTEL	9500	1/01	25	4.4	4.8	5.1
MT. BALDY R.S.	9500				-	9.9
MUD CREEK #2	8600				-	5.3
OAK CREEK	7760				-	-
PANGUITCH LAKE R.S.	8200				-	-
PARLEY'S CANYON SNTL	7500	1/01	25	5.5	8.9	7.2
PARRISH CREEK SNOTEL	7740	1/01	32	8.6	12.1	-
PAYSON R.S. SNOTEL	8050	1/01	18	4.9	6.9	7.2
PICKLE KEG SNOTEL	9600	1/01	23	5.2	7.0	6.2
PINE CREEK SNOTEL	8800	1/01	34	6.9	5.3	8.8
RED PINE RIDGE SNTL	9200	1/01	22	4.1	7.7	6.7
REDDEN MINE LOWER	8500				-	6.7
REES'S FLAT	7300				-	5.6
ROCK CREEK SNOTEL	7900	1/01	16	3.3	5.2	3.7
ROCKY BN-SETTLEMT SN	8900	1/01	29	7.4	6.8	10.0
SEELEY CREEK SNOTEL	10000	1/01	21	5.6	6.5	6.4
SMITH MOREHOUSE SNTL	7600	1/01	23	5.4	7.4	5.7
SNOWBIRD SNOTEL	9700	1/01	36	9.1	20.3	13.2
SPIRIT LAKE	10300				-	5.5
SQUAW SPRINGS	9300				-	3.2
STEEL CREEK PARK SNO	10100	1/01	29	6.2	7.4	6.7
STILLWATER CAMP	8550				-	3.9
STRAWBERRY DIVIDE SN	8400	1/01	25	5.1	7.4	7.4
SUSC RANCH	8200				-	2.8
TALL POLES	8800				-	5.3
TEMPLE FORK SNOTEL	7410	1/01	25	5.0	10.2	-
THAYNES CANYON SNTL	9200	1/01	35	8.5	12.8	9.0
THISTLE FLAT	8500				-	-
TIMBERLINE	9100				-	-
TIMPANOGOS DIVIDE SN	8140	1/01	28	5.7	10.7	9.2
TONY GROVE LK SNOTEL	8400	1/01	44	12.4	23.3	14.3
TONY GROVE R.S.	6250				-	5.0
TRIAL LAKE	9960				-	9.8
TRIAL LAKE SNOTEL	9960	1/01	31	5.8	15.6	10.5
TROUT CREEK SNOTEL	9400	1/01	21	4.5	2.5	4.2
UPPER JOES VALLEY	8900				-	4.1
VERNON CREEK SNOTEL	7500	1/01	14	2.3	2.3	4.0
VIPONT	7670				-	-
WEBSTER FLAT SNOTEL	9200	1/01	20	4.0	2.7	6.0
WHITE RIVER #1 SNTL	8550	1/01	21	3.1	5.2	5.2
WHITE RIVER #3	7400				-	3.5
WIDTSOE #3 SNOTEL	9500	1/01	19	3.0	1.3	4.4
WRIGLEY CREEK	9000				-	4.3
YANKEE RESERVOIR	8700				-	3.7



*Issued by*

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YOU MAY OBTAIN THIS PRODUCT AS WELL AS CURENT SNOW, PRECIPITATION, TEMPERATURE AND SOIL MOISTURE, RESERVOIR, SURFACE WATER SUPPLY INDEX, AND OTHER DATA BY VISITING OUR WEB SITE @:

<http://www.ut.nrcs.usda.gov/snow/>

Snow Survey, NRCS, USDA  
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Salt Lake City, UT 84116  
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# **Utah Water Supply Outlook Report**

Natural Resources Conservation Service  
Salt Lake City, UT





# Utah Water Supply Outlook Report

February, 2007



**Red Pine Ridge SNOTEL, January 2007, Central Utah, Wasatch Plateau.  
Photo by Randy Julander, NRCS, USDA .**



# Water Supply Outlook Reports

## and Federal - State - Private Cooperative Snow Surveys

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### *How forecasts are made*

Most of the annual streamflow in the western United States originates as snowfall that has accumulated in the mountains during the winter and early spring. As the snowpack accumulates, hydrologists estimate the runoff that will occur when it melts. Measurements of snow water equivalent at selected manual snowcourses and automated SNOTEL sites, along with precipitation, antecedent streamflow, and indices of the El Niño / Southern Oscillation are used in computerized statistical and simulation models to prepare runoff forecasts. These forecasts are coordinated between hydrologists in the Natural Resources Conservation Service and the National Weather Service. Unless otherwise specified, all forecasts are for flows that would occur naturally without any upstream influences.

Forecasts of any kind, of course, are not perfect. Streamflow forecast uncertainty arises from three primary sources: (1) uncertain knowledge of future weather conditions, (2) uncertainty in the forecasting procedure, and (3) errors in the data. The forecast, therefore, must be interpreted not as a single value but rather as a range of values with specific probabilities of occurrence. The middle of the range is expressed by the 50% exceedance probability forecast, for which there is a 50% chance that the actual flow will be above, and a 50% chance that the actual flow will be below, this value. To describe the expected range around this 50% value, four other forecasts are provided, two smaller values (90% and 70% exceedance probability) and two larger values (30%, and 10% exceedance probability). For example, there is a 90% chance that the actual flow will be more than the 90% exceedance probability forecast. The others can be interpreted similarly.

The wider the spread among these values, the more uncertain the forecast. As the season progresses, forecasts become more accurate, primarily because a greater portion of the future weather conditions become known; this is reflected by a narrowing of the range around the 50% exceedance probability forecast. Users should take this uncertainty into consideration when making operational decisions by selecting forecasts corresponding to the level of risk they are willing to assume about the amount of water to be expected. If users anticipate receiving a lesser supply of water, or if they wish to increase their chances of having an adequate supply of water for their operations, they may want to base their decisions on the 90% or 70% exceedance probability forecasts, or something in between. On the other hand, if users are concerned about receiving too much water (for example, threat of flooding), they may want to base their decisions on the 30% or 10% exceedance probability forecasts, or something in between. Regardless of the forecast value users choose for operations, they should be prepared to deal with either more or less water. (Users should remember that even if the 90% exceedance probability forecast is used, there is still a 10% chance of receiving less than this amount.) By using the exceedance probability information, users can easily determine the chances of receiving more or less water.

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# STATE OF UTAH GENERAL OUTLOOK

Feb 1, 2007

## SUMMARY

It is not often that we have a January this cold and this dry, especially as far as snow accumulation is concerned. It is even less often when we write an obituary for the season at the beginning of February. We are very optimistic folks here in Utah, especially in the water supply business and we are always looking for that glimmer of hope, the Hail Mary pass to the end zone or even some sea gulls eating crickets. That is about what it will take at this point to bring Utah watersheds back to average snowpack conditions. In a nutshell: the Bear River needs 163% of average snowpack accumulation in February and March to reach average, the probability of getting that much snow is 3%. That is the optimistic version. The pessimist realizes there is a 97% probability it's not going to happen. The Weber: 163% accumulation, 0% probability, Provo: 164%, 3%, Uintah Basin: 140%, 6%, southeast Utah: 167%, 6%, Sevier 149%, 19% and southwest Utah: 163%, accumulation and a 33% probability. The natural variability in southern Utah can be amazing - if there were no snow in that region, it would still have an 11% chance of getting back to normal. So, can it happen, the answer is yes, will it happen and the answer is maybe - but. Maybe - the term itself is full of doubt, couple that with a meteorological forecast of essentially nothing for the next week or so and we only have half of February and March to make the accumulation. The coffin seems to be nailed and we are only talking about what to put on the epitaph at this point, and as noted, it is still the beginning of February. On a brighter note, when snowpacks are this low, they typically rebound to some degree. Only a few cases have continued to spiral downward like 1977 snowpacks did. While average is not likely, perhaps we might make it back to 80% if things change back to a wetter pattern. Soil moisture continues to decline slightly from last month with: Bear - 66%, Weber - 60%, Provo - 48%, Uintah Basin - 39%, southeast Utah - 49%, Sevier - 44%, southwest Utah - 31% and statewide - 48% of saturation. These values are a little higher than last year. In general, most areas of the state have excellent reservoir carryover. General water supply conditions range from below to near average. Streamflow forecasts range from 10% to 86% of average. Surface Water Supply Indices range from 23% on the Bear River, to 84% on the west side of the Uintah Basin.

## SNOWPACK

February first snowpacks as measured by the NRCS SNOTEL are as follows: Bear - 62%, Weber - 60%, Provo - 57%, Uintahs - 74%, southeast Utah - 55%, Sevier - 67%, southwest Utah - 65% and the statewide figure is 64% of average. South facing aspects have melted off to surprisingly high elevations, in some places to the 10,000 ft range. Utah needs between 140% and 167% of normal snowpack accumulation in February and March to reach average conditions. The probability of getting this accumulation ranges between 0 and 33% with most areas at 6% or less. Although there are still several months of potential accumulation left in this season, we are not likely to see a return to average conditions this year.

## PRECIPITATION

Mountain precipitation during January was much below normal at 40% of average statewide. Precipitation ranged from 34% on the Bear to 50% on the Uintah Basin. This brings the seasonal accumulation (Oct-Jan) to 86% of average statewide and ranges from 77% on the Bear to 99% over southeastern Utah.

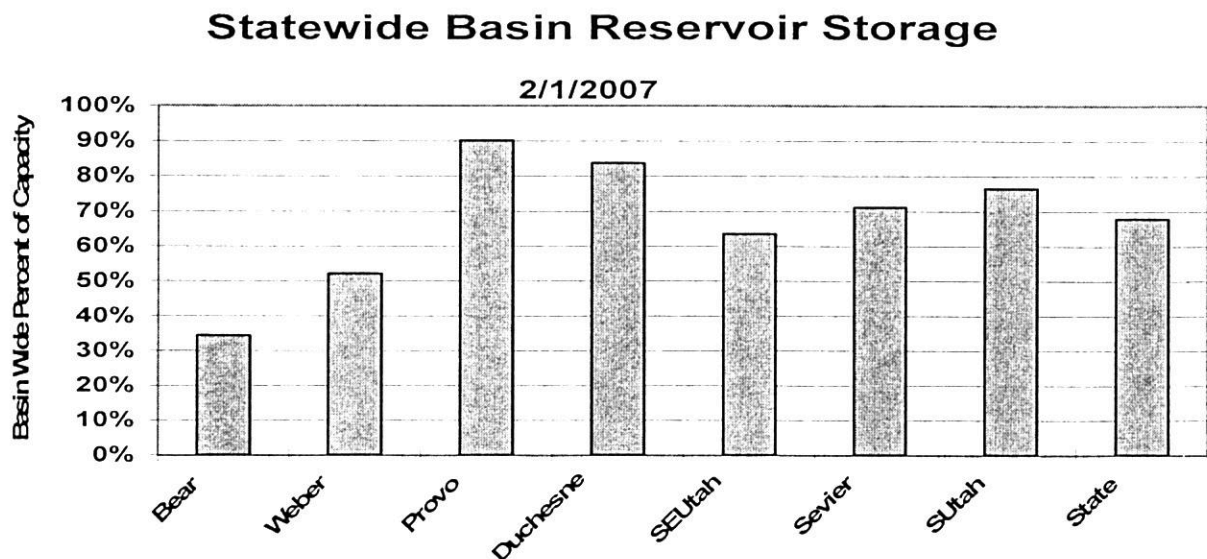
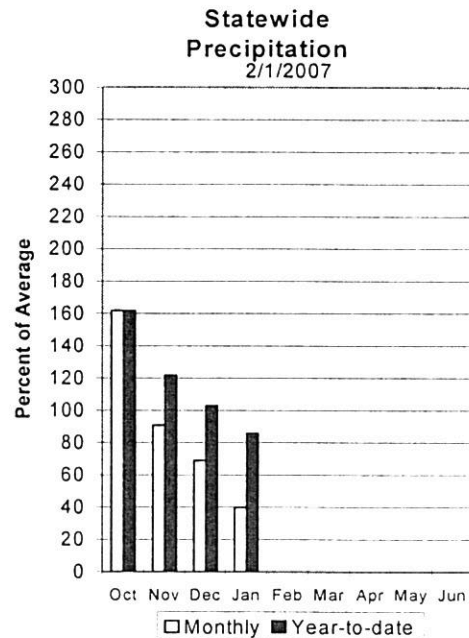
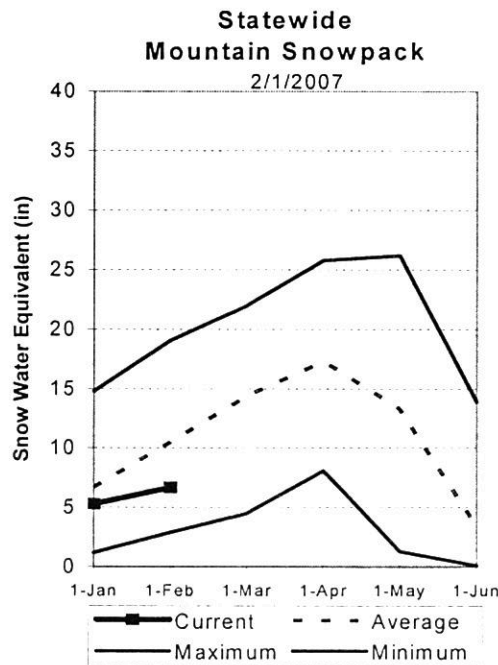
## RESERVOIRS



Storage in 41 of Utah's key irrigation reservoirs is at 68% of capacity. This is an increase of 1% from last year. Reservoirs across the State have been making steady gains in storage. Bear Lake really is the last reservoir to remain in an extremely low condition due to the prolonged drought.

## STREAMFLOW

Snowmelt streamflows are expected to have a wide range from much below average to near average across the state of Utah this year. Forecast streamflows range from 10% on North Creek nr Monticello to 86% of average for Big Brush Creek nr Red Fleet Reservoir. Most flows are forecast to be in the 50% to 70% range.



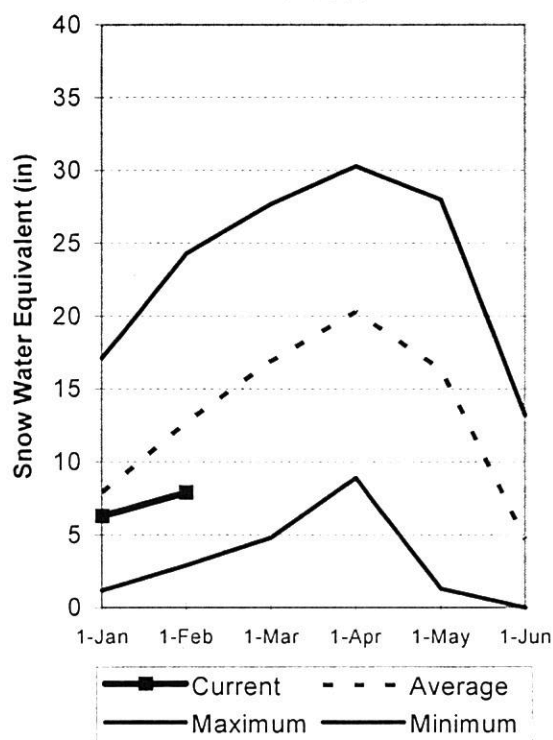
# Bear River Basin

February 1, 2007

Snowpacks on the Bear River Basin are much below average at 62% of normal, about 44% of last year. Specific sites range from 53% to 91% of normal. January precipitation was much below average at 38%, which brings the seasonal accumulation (Oct-January) to 77% of average. Soil moisture levels in runoff producing areas are at 66% of saturation in the upper 2 feet of soil compared to 57% last year. This is due mainly to above average precipitation in October. Forecast streamflows range from much below average to average (41%-81%) volumes this spring. Reservoir storage is low at 35% of capacity, 13% more than last year. The Surface Water Supply Index is at 21% for the Bear River, or 79% of years have had more total water available. Water supply conditions are much below normal due to low reservoir storage and only about a 3% chance this year of reaching April 1<sup>st</sup> snow water equivalent average.

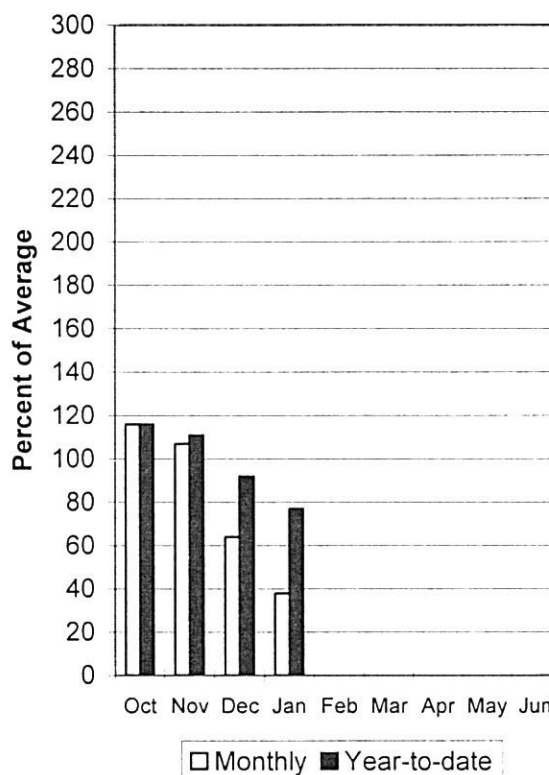
## Bear River Snowpack

2/1/2007



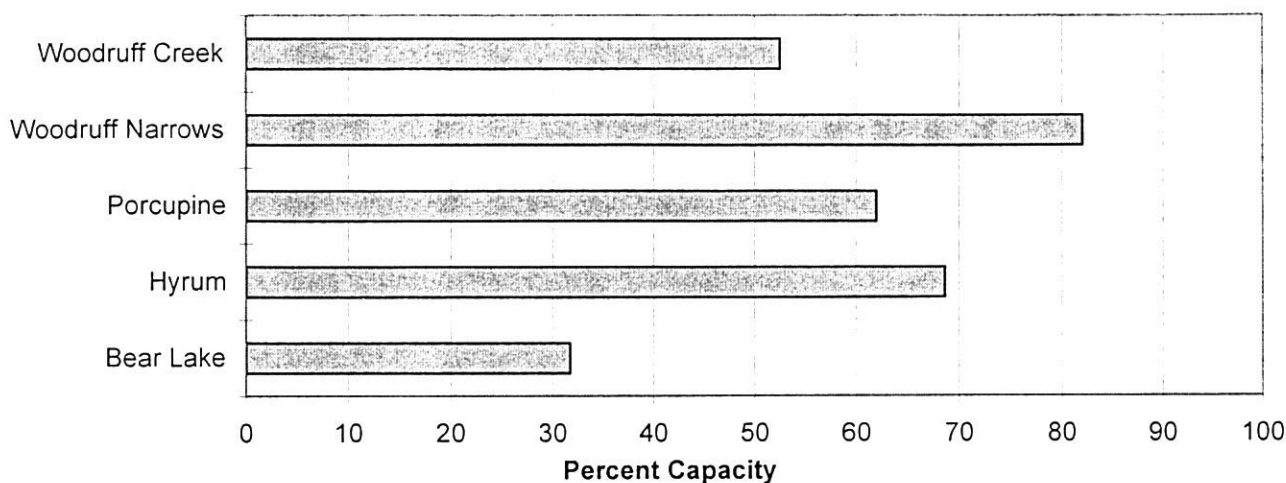
## Bear River Precipitation

2/1/2007



## Reservoir Storage

2/1/2007



BEAR RIVER BASIN  
Streamflow Forecasts - February 1, 2007

		<<===== Drier ===== Future Conditions ===== Wetter =====>>						
Forecast Point	Forecast Period	Chance Of Exceeding *						30-Yr Avg. (1000AF)
		90% (1000AF)	70% (1000AF)	50% (1000AF)	(% AVG.)	30% (1000AF)	10% (1000AF)	
Bear River nr UT-WY State Line	APR-JUL	61	79	92	81	106	129	113
Bear River ab Reservoir nr Woodruff	APR-JUL	30	60	85	63	115	168	136
Big Creek nr Randolph	APR-JUL	0.3	1.1	2.0	41	3.1	5.2	4.9
Smiths Fork nr Border	APR-JUL	37	53	65	63	78	101	103
Bear River at Stewart Dam	APR-JUL	27	77	125	53	184	295	234
Little Bear River at Paradise	APR-JUL	5.8	13.0	19.5	42	27	41	46
Logan R Abv State Dam Nr Logan	APR-JUL	32	49	63	50	79	105	126
Blacksmith Fk Abv Up&L Dam Nr Hyrum	APR-JUL	10.1	18.2	25	52	33	46	48

BEAR RIVER BASIN Reservoir Storage (1000 AF) - End of January					BEAR RIVER BASIN Watershed Snowpack Analysis - February 1, 2007			
Reservoir	Usable Capacity	*** Usable Storage ***			Watershed	Number of Data Sites	This Year as % of	
		This Year	Last Year	Avg			Last Yr	Average
BEAR LAKE	1302.0	413.0	276.0	---	BEAR RIVER, UPPER (abv Ha	6	49	66
HYRUM	15.3	10.5	10.5	10.4	BEAR RIVER, LOWER (blw Ha	8	40	60
PORCUPINE	11.3	7.0	9.0	4.4	LOGAN RIVER	4	38	59
WOODRUFF NARROWS	57.3	47.0	34.0	25.2	RAFT RIVER	1	48	95
WOODRUFF CREEK	4.0	2.1	2.7	---	BEAR RIVER BASIN	14	43	62

\* 90%, 70%, 50%, 30%, and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table.

The average is computed for the 1971-2000 base period.

- (1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.  
 (2) - The value is natural volume - actual volume may be affected by upstream water management.



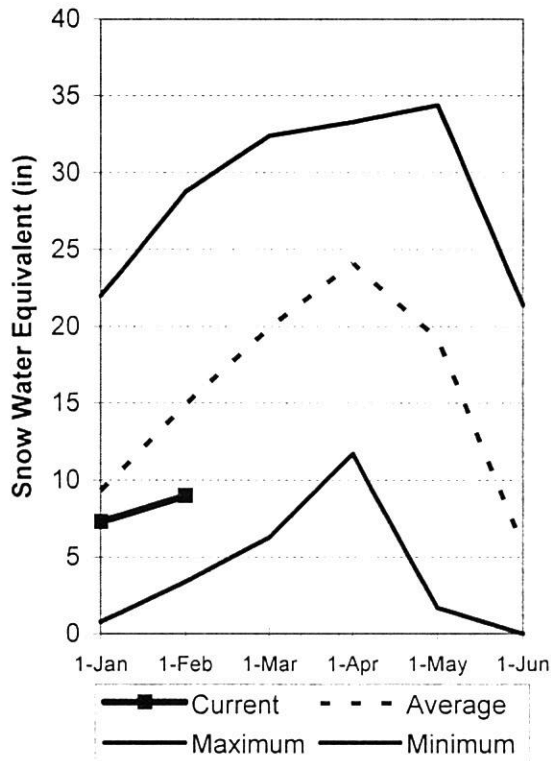
# Weber and Ogden River Basins

February 1, 2007

Snowpack on the Weber and Ogden Watersheds is much below average at 60%, about 45% of last year. Individual sites range from 38% to 87% of average. January precipitation was much below average at 34% bringing the seasonal accumulation (Oct-January) to 80% of average. Soil moisture levels in runoff producing areas are at 60% of saturation in the upper 2 feet of soil compared to 55% last year. Streamflow forecasts range from 41% to 71% of average. Reservoir storage is at 52% of capacity, 22% lower than last year. The Surface Water Supply Index is at 12% for the Weber River and at 26% for the Ogden River. Overall water supply conditions are below normal with very little probability of reaching April 1<sup>st</sup> average snow water equivalent.

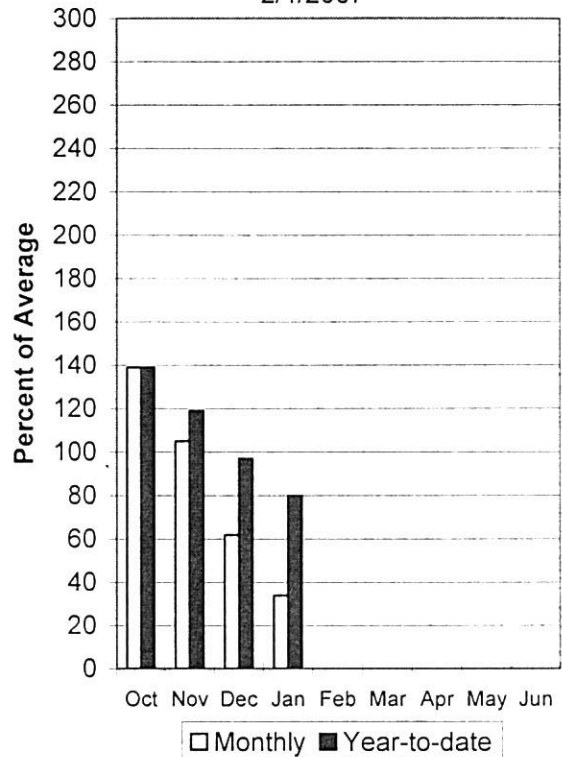
## Weber River Snowpack

2/1/2007



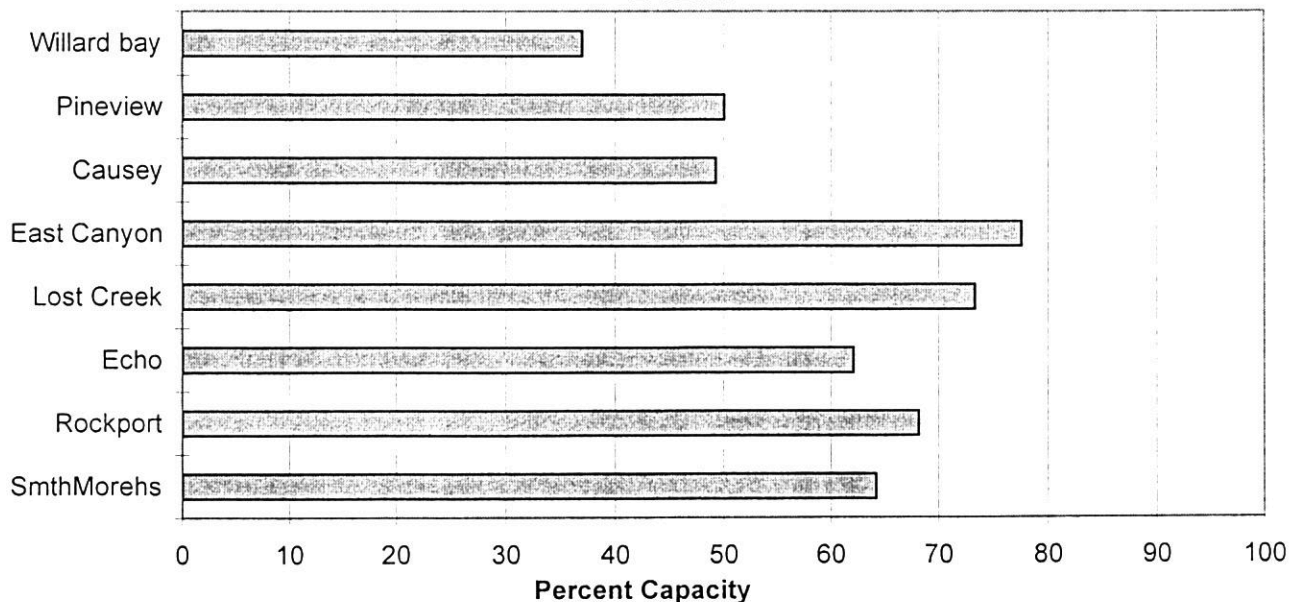
## Weber River Precipitation

2/1/2007



## Reservoir Storage

2/1/2007



WEBER & OGDEN WATERSHEDS in Utah  
Streamflow Forecasts - February 1, 2007

Forecast Point	Forecast Period	<<===== Drier ===== Future Conditions ===== Wetter =====>>						
		Chance Of Exceeding *						
		90% (1000AF)	70% (1000AF)	50% (1000AF)	(% AVG.)	30% (1000AF)	10% (1000AF)	30-Yr Avg. (1000AF)
Smith & Morehouse Res inflow	APR-JUL	16.4	21	24	71	27	32	34
Weber River nr Oakley	APR-JUL	53	72	85	69	98	117	123
Rockport Resv Inflow Nr Wanship	APR-JUL	43	68	85	63	102	127	134
Weber River nr Coalville	APR-JUL	42	64	82	60	102	136	137
Chalk Creek at Coalville	APR-JUL	10.9	21	30	67	40	59	45
Echo Reservoir inflow	APR-JUL	52	87	110	62	133	168	179
Lost Creek Reservoir inflow	APR-JUL	2.7	5.4	7.8	44	10.6	15.5	17.6
East Canyon Reservoir inflow	APR-JUL	5.6	11.0	15.7	51	21	31	31
Weber River at Gateway	APR-JUL	60	129	175	49	221	290	355
SF Ogden River nr Huntsville	APR-JUL	14.7	26	35	55	46	64	64
Pineview Reservoir inflow	APR-JUL	18.0	48	68	51	88	118	133
Wheeler Creek nr Huntsville	APR-JUL	0.8	1.7	2.6	41	3.6	5.5	6.3

WEBER & OGDEN WATERSHEDS in Utah Reservoir Storage (1000 AF) - End of January					WEBER & OGDEN WATERSHEDS in Utah Watershed Snowpack Analysis - February 1, 2007			
Reservoir	Usable Capacity	*** Usable Storage ***			Watershed	Number of Data Sites	This Year as % of	
		This Year	Last Year	Avg			Last Yr	Average
CAUSEY	7.1	3.5	3.3	2.8	OGDEN RIVER	4	39	49
EAST CANYON	49.5	38.4	36.9	35.4	WEBER RIVER	9	49	67
ECHO	73.9	45.9	53.0	50.2	WEBER & OGDEN WATERSHEDS	13	45	60
LOST CREEK	22.5	16.5	15.5	14.0				
PINEVIEW	110.1	55.1	57.1	51.7				
ROCKPORT	60.9	41.5	40.0	34.3				
WILLARD BAY	215.0	79.5	190.1	151.6				

\* 90%, 70%, 50%, 30%, and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table.

The average is computed for the 1971-2000 base period.

- (1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.  
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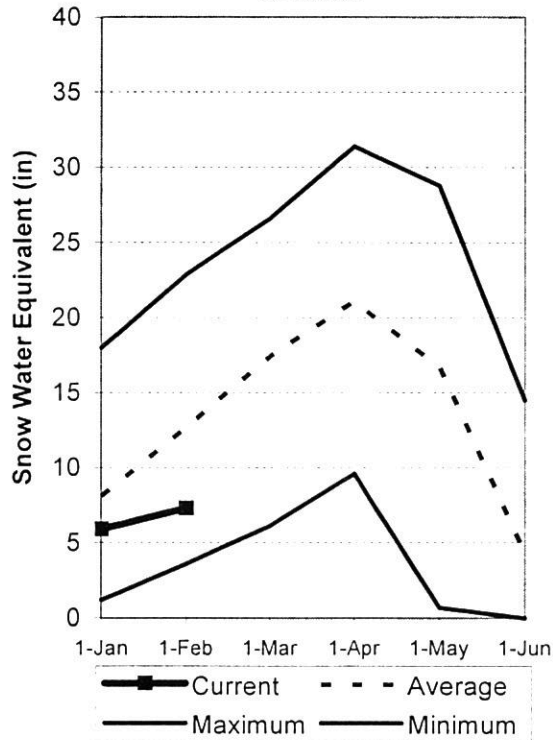
# Utah Lake, Jordan River & Tooele Valley Basins

February 1, 2007

Snowpack over these regions are much below average at 57%, which is 44% of last year and down 16% from last month. These watersheds have a 3% chance of reaching average snowpack this season. Individual sites range from 23% to 86% of average. January precipitation was much below average at 37%, bringing the seasonal accumulation (Oct-Jan) to 77% of average. Soil moisture levels in runoff producing areas are at 48% of saturation in the upper 2 feet of soil compared to 44% last year. Reservoir storage is at 90% of capacity, 6% higher than last year. Streamflow forecasts range from 39% to 74% of average. The Surface Water Supply Index is at 48%, indicating general water supply conditions are near normal due to good reservoir carryover.

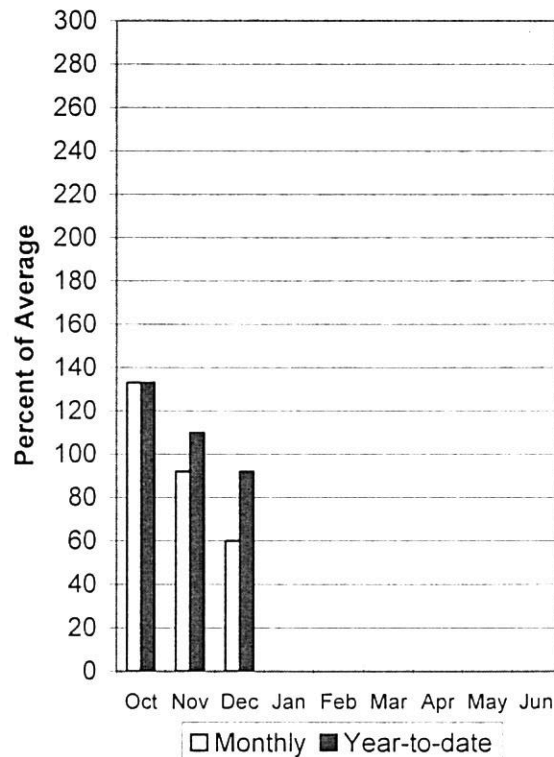
## Provo River Snowpack

2/1/2007



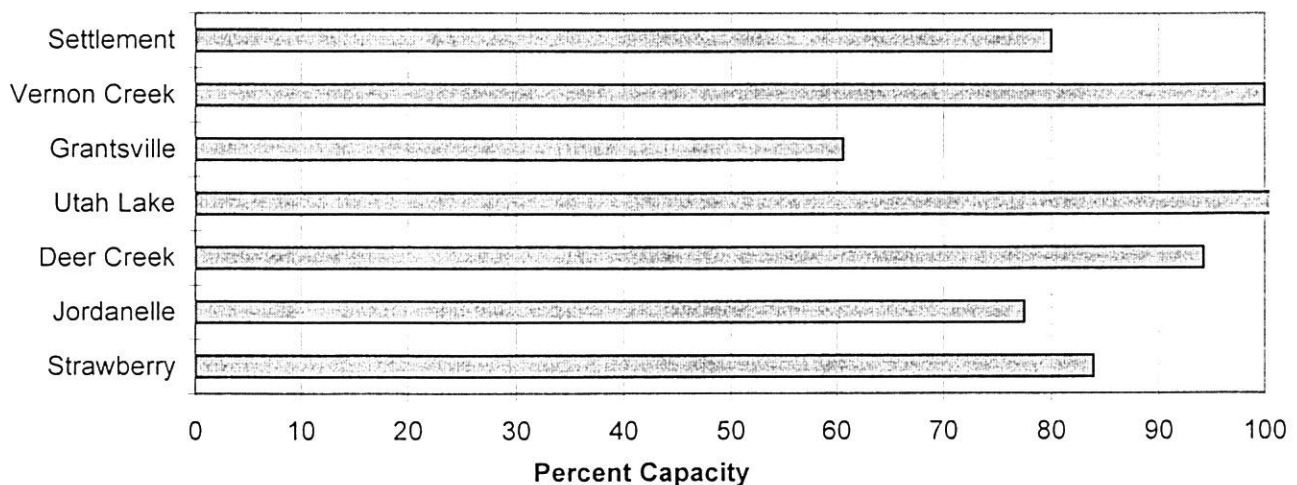
## Provo River Precipitation

2/1/2007



## Reservoir Storage

2/1/2007





UTAH LAKE, JORDAN RIVER & TOOELE VALLEY  
Streamflow Forecasts - February 1, 2007

Forecast Point	Forecast Period	<<===== Drier =====		Future Conditions =====		===== Wetter =====>>		30-Yr Avg. (1000AF)	
		Chance Of Exceeding *							
		90% (1000AF)	70% (1000AF)	50% (1000AF)	(% AVG.)	30% (1000AF)	10% (1000AF)		
Spanish Fork River nr Castilla	APR-JUL	5.3	18.5	32	42	49	81	77	
Provo River nr Woodland	APR-JUL	41	56	67	65	79	100	103	
Provo River nr Hailstone	APR-JUL	37	53	65	60	79	101	109	
Deer Creek Resv Inflow	APR-JUL	40	62	80	64	100	133	126	
American Fk Abv Upper Powerplant	APR-JUL	6.2	9.8	12.6	39	15.8	21	32	
Utah Lake inflow	APR-JUL	83	126	160	49	198	260	325	
West Canyon Ck Nr Cedar Fort	APR-JUL	0.3	0.7	1.1	46	1.6	2.5	2.4	
Little Cottonwood Ck nr SLC	APR-JUL	13.8	18.5	22	55	26	32	40	
Big Cottonwood Ck nr SLC	APR-JUL	13.8	17.9	21	55	24	30	38	
Mill Creek nr SLC	APR-JUL	2.3	3.3	4.2	60	5.2	6.8	7.0	
Parley's Creek nr SLC	APR-JUL	3.5	6.4	8.9	53	11.8	16.8	16.7	
Dell Fork nr SLC	APR-JUL	0.7	1.8	2.8	41	4.0	6.2	6.8	
Emigration Creek nr SLC	APR-JUL	0.4	1.2	1.9	42	2.8	4.4	4.5	
City Creek nr SLC	APR-JUL	2.9	4.3	5.5	63	6.8	8.9	8.7	
Vernon Creek nr Vernon	APR-JUL	0.2	0.5	0.8	52	1.1	1.7	1.5	
Settlement Creek Abv Resv Nr Tooele	APR-JUL	0.2	0.6	0.9	45	1.4	2.3	2.1	
South Willow Creek nr Grantsville	APR-JUL	1.3	1.9	2.4	74	2.9	3.8	3.2	

UTAH LAKE, JORDAN RIVER & TOOELE VALLEY Reservoir Storage (1000 AF) - End of January					UTAH LAKE, JORDAN RIVER & TOOELE VALLEY Watershed Snowpack Analysis - February 1, 2007			
Reservoir	Usable Capacity	*** Usable Storage ***			Watershed	Number of Data Sites	This Year as % of	
		This Year	Last Year	Avg			Last Yr	Average
DEER CREEK	149.7	141.0	122.4	104.8	PROVO RIVER & UTAH LAKE	7	40	50
GRANTSVILLE	3.3	2.4	2.2	1.8	PROVO RIVER	4	38	50
SETTLEMENT CREEK	1.0	0.8	0.8	0.6	JORDAN RIVER & GREAT SALT	6	43	60
STRAWBERRY-ENLARGED	1105.9	928.0	837.6	642.2	TOOELE VALLEY WATERSHEDS	3	63	67
UTAH LAKE	870.9	893.0	832.0	790.9	UTAH LAKE, JORDAN RIVER &	16	44	57
VERNON CREEK	0.6	0.6	0.5	---				

\* 90%, 70%, 50%, 30%, and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table.

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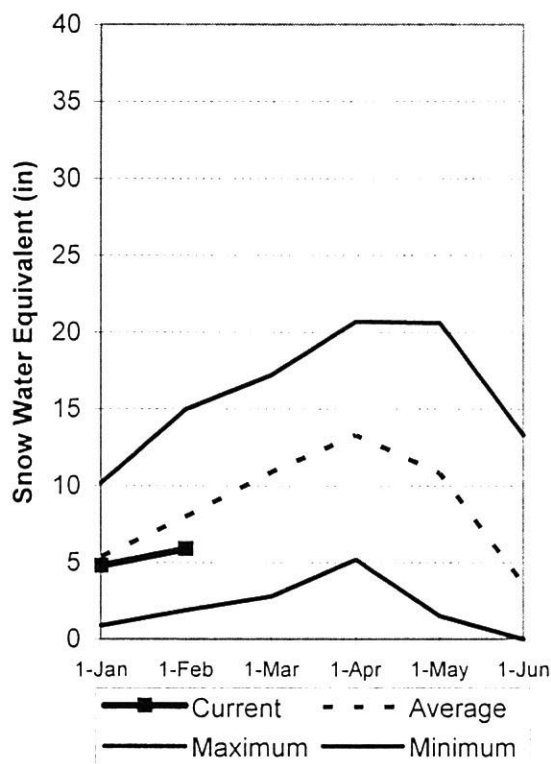
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February 1, 2007

Snowpack across the Uintah Basin and North Slope areas is below average at 75%, which is 67% of last year. The North Slope ranges from 81% to 120% and the Uintah Basin ranges from 49% to 95% of average. Precipitation during January was much below average at 50% bringing the seasonal accumulation (Oct-Jan) to 92% of average. Soil moisture values in runoff producing areas are at 39% of saturation in the upper 2 feet of soil compared to 33% last year. Reservoir storage is at 84% of capacity, 6% more than last year. Streamflow forecasts range from 55% to 86% of average. The Surface Water Supply Index for the western area is 68% and for the eastern area it is 38% indicating above normal conditions on the west side and below normal for the eastern area. General water supply conditions range from above to below average from west to east with the excellent reservoir carryover.

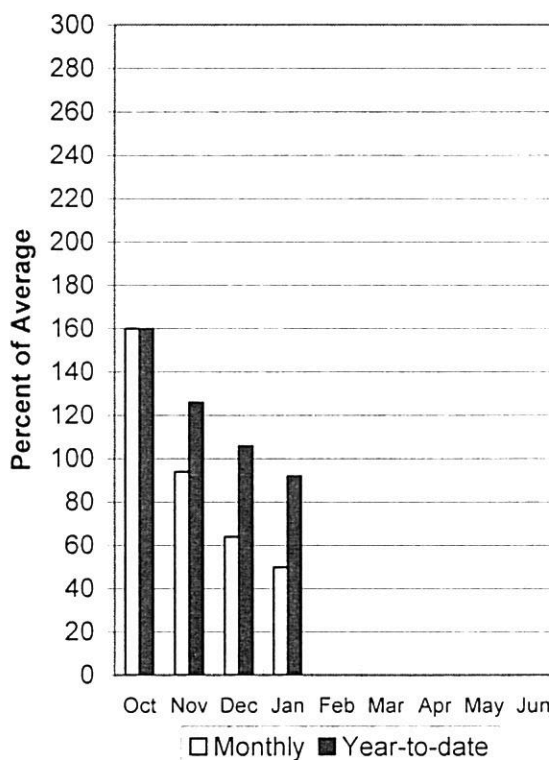
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2/1/2007



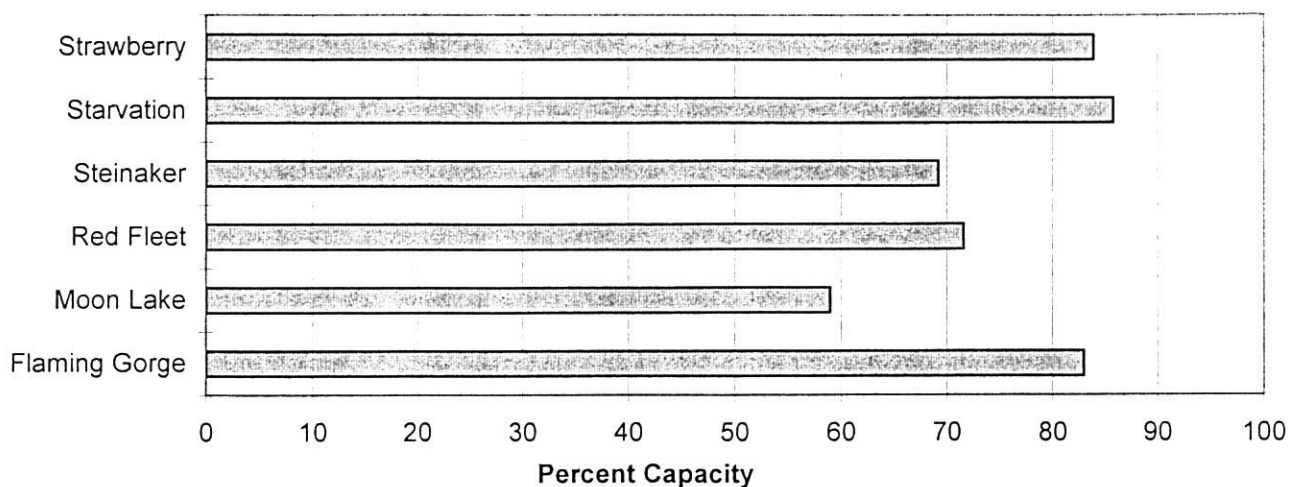
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2/1/2007



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2/1/2007





UTAH BASIN & DAGGET SCD'S  
 Streamflow Forecasts - February 1, 2007

Forecast Point	Forecast Period	<<----- Drier ----- Future Conditions ----- Wetter ----->>						
		90%		50%		30%		30-Yr Avg.
		(1000AF)	(1000AF)	(1000AF)	(% AVG.)	(1000AF)	(1000AF)	(1000AF)
Blacks Fork nr Robertson	APR-JUL	53	68	79	83	91	111	95
EF of Smiths Fork nr Robertson	APR-JUL	14.6	19.9	24	83	29	36	29
Flaming Gorge Reservoir Inflow (2)	APR-JUL	401	596	750	63	922	1207	1190
Big Brush Ck abv Red Fleet Resv	APR-JUL	10.1	14.5	18.0	86	22	28	21
Ashley Creek nr Vernal	APR-JUL	25	35	43	83	52	66	52
WF Duchesne River nr Hanna (2)	APR-JUL	8.9	12.3	15.0	63	17.9	23	24
Duchesne R nr Tabiona (2)	APR-JUL	39	54	66	63	79	100	105
Upper Stillwater Resv Inflow	APR-JUL	45	57	65	79	74	88	82
Rock Ck nr Mountain Home (2)	APR-JUL	48	61	70	79	80	96	89
Duchesne R abv Knight Diversion (2)	APR-JUL	82	109	130	69	152	188	188
Strawberry R nr Soldier Springs (2)	APR-JUL	15.7	27	36	61	47	65	59
Currant Creek Reservoir Inflow (2)	APR-JUL	4.8	10.7	16.0	64	22	34	25
Strawberry R nr Duchesne (2)	APR-JUL	28	49	66	55	86	121	121
Lake Fork River Moon Lake Inflow	APR-JUL	38	48	55	81	63	75	68
Yellowstone River nr Altonah	APR-JUL	31	41	49	79	58	71	62
Duchesne R at Myton (2)	APR-JUL	55	111	160	62	218	319	260
Whiterocks near Whiterocks	APR-JUL	27	38	46	82	55	71	56
Duchesne R nr Randlett (2)	APR-JUL	70	139	200	62	272	397	324

UTAH BASIN & DAGGET SCD'S  
 Reservoir Storage (1000 AF) - End of January

Reservoir	Usable Capacity	*** Usable Storage ***		
		This Year	Last Year	Avg
FLAMING GORGE	3749.0	3110.0	3054.0	2966.0
MOON LAKE	49.5	29.2	30.2	27.9
RED FLEET	25.7	18.4	21.4	18.0
STEINAKER	33.4	23.1	29.5	21.6
STARVATION	165.3	141.8	137.1	132.3
STRAWBERRY-ENLARGED	1105.9	928.0	837.6	642.2

UTAH BASIN & DAGGET SCD'S  
 Watershed Snowpack Analysis - February 1, 2007

Watershed	Number of Data Sites	This Year as % of	
		Last Yr	Average
UPPER GREEN RIVER in UTAH	6	94	87
ASHLEY CREEK	2	122	79
BLACK'S FORK RIVER	2	71	82
SHEEP CREEK	1	163	100
DUCHESNE RIVER	11	59	70
LAKE FORK-YELLOWSTONE CRE	4	61	75
STRAWBERRY RIVER	4	47	59
UINTAH-WHITEROCKS RIVERS	2	92	84
UINTAH BASIN & DAGGET SCD	17	67	75

\* 90%, 70%, 50%, 30%, and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table.

The average is computed for the 1971-2000 base period.

- (1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.  
 (2) - The value is natural volume - actual volume may be affected by upstream water management.

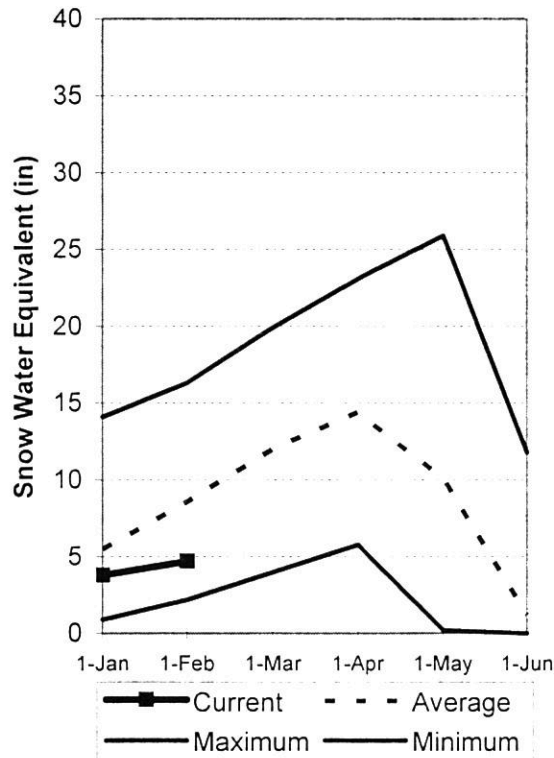
# Carbon, Emery, Wayne, Grand and San Juan Co.

## February 1, 2007

Snowpacks in this region are much below normal at 54% of average, about 56% of last year. Individual sites range from 34% to 108% of average, with the Abajo Mountains the driest in the region. It would require 167% of average February – March snowpack increase to reach an average April 1<sup>st</sup> value. The probability of reaching or exceeding average April 1 snowpack conditions are 6%. Precipitation during January was much below average at 37%, bringing the seasonal accumulation (Oct-Jan) to 99% of normal. Soil moisture estimates in runoff producing areas are at 49% of saturation in the upper 2 feet of soil compared to 34% last year and down 2% from last month. Forecast streamflows range from 26% to 89% of average. Reservoir storage is at 64% of capacity, down 5% from last year. Surface Water Supply Indices for the area are: Price 52%, San Rafael area 47% and Moab 39%. General runoff and water supply conditions are near to below normal.

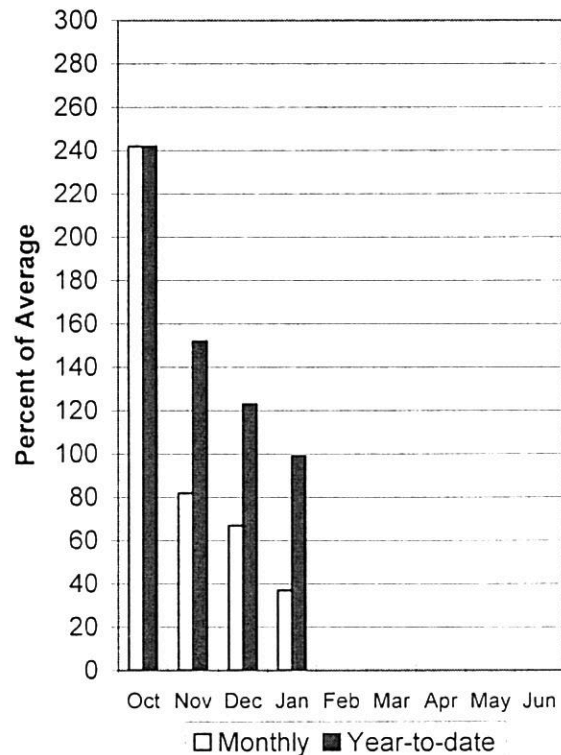
### Southeast Utah Snowpack

2/1/2007



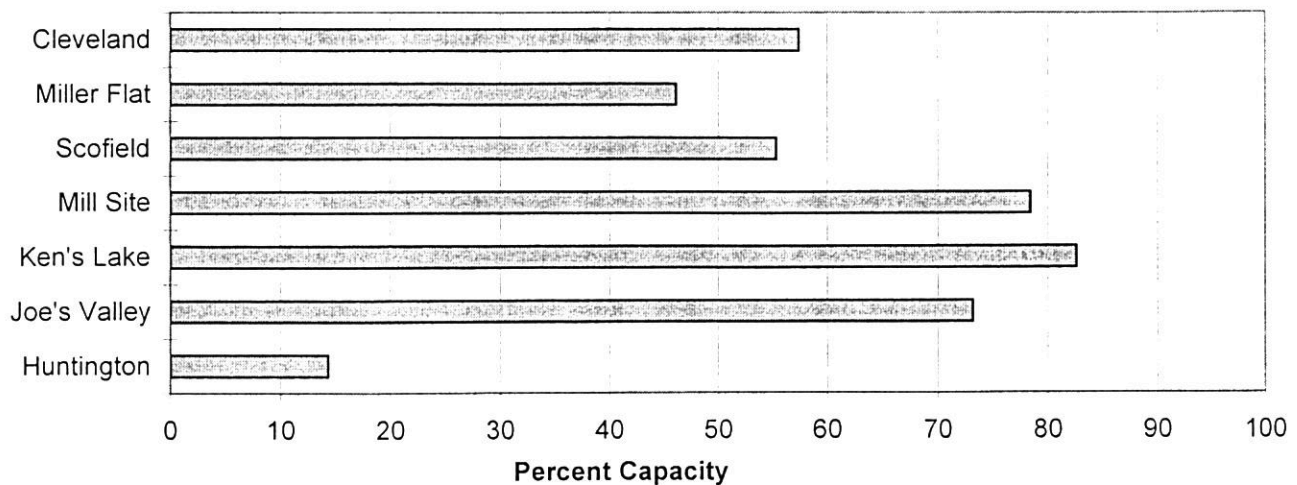
### Southeast Utah Precipitation

2/1/2007



### Reservoir Storage

2/1/2007





CARBON, EMERY, WAYNE, GRAND, & SAN JUAN Co.  
Streamflow Forecasts - February 1, 2007

Forecast Point	Forecast Period	<----- Drier ----- Future Conditions ----- Wetter ----->						
		Chance Of Exceeding *						
		90% (1000AF)	70% (1000AF)	50% (1000AF)	(% AVG.)	30% (1000AF)	10% (1000AF)	30-Yr Avg. (1000AF)
Gooseberry Creek nr Scofield	APR-JUL	4.3	6.3	7.8	66	9.5	12.3	11.9
Price River near Scofield Reservoir	APR-JUL	8.3	21	30	67	39	52	45
White River blw Tabbayne Creek	APR-JUL	3.3	6.1	8.6	50	11.5	16.5	17.3
Green River at Green River, UT (2)	APR-JUL	725	1540	2100	66	2660	3480	3170
Huntington Ck Inflow to Electric Lk	APR-JUL	4.7	7.7	10.2	65	13.0	17.7	15.7
Huntington Ck nr Huntington	APR-JUL	12.1	25	34	69	43	56	49
Joe's Valley Resv Inflow	APR-JUL	23	32	40	69	48	62	58
Ferron Ck (Upper Station) nr Ferron	APR-JUL	16.8	23	28	72	33	42	39
Colorado River Near Cisco (2)	APR-JUL	1710	3070	4000	86	4930	6290	4650
Mill Creek at Sheley Tunnel nr Moab	APR-JUL	1.7	2.5	3.1	62	3.8	5.1	5.0
Seven Mile Ck nr Fish Lake	APR-JUL	3.4	4.8	5.8	83	7.0	8.8	7.0
Muddy Creek nr Emery	APR-JUL	8.5	12.2	15.0	75	18.1	23	19.9
North Ck ab R.S. nr Monticello	MAR-JUL	0.0	0.0	0.1	10	0.1	0.3	0.8
South Ck ab Lloyd's Res nr Monticell	MAR-JUL	0.1	0.2	0.3	23	0.5	1.0	1.4
Recapture Ck Bl Johnson Ck nr Blandi	MAR-JUL	0.3	0.8	1.4	28	2.3	4.1	5.0
San Juan River near Bluff (2)	APR-JUL	440	810	1060	86	1310	1680	1230

CARBON, EMERY, WAYNE, GRAND, & SAN JUAN Co.  
Reservoir Storage (1000 AF) - End of January

CARBON, EMERY, WAYNE, GRAND, & SAN JUAN Co.  
Watershed Snowpack Analysis - February 1, 2007

Reservoir	Usable Capacity	*** Usable Storage ***			Watershed	Number of Data Sites	This Year as % of	
		This Year	Last Year	Avg			Last Yr	Average
HUNTINGTON NORTH	4.2	0.6	3.1	2.8	PRICE RIVER	3	39	44
JOE'S VALLEY	61.6	45.1	44.3	41.2	SAN RAFAEL RIVER	3	50	59
KEN'S LAKE	2.3	2.0	2.1	1.1	MUDDY CREEK	1	38	49
MILL SITE	16.7	13.1	9.2	78.8	FREMONT RIVER	3	103	71
SCOFIELD	65.8	36.4	44.8	33.8	LASAL MOUNTAINS	1	75	65
					BLUE MOUNTAINS	1	111	34
					WILLOW CREEK	1	178	65
					CARBON, EMERY, WAYNE, GRA	13	56	54

\* 90%, 70%, 50%, 30%, and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table.

The average is computed for the 1971-2000 base period.

- (1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.  
 (2) - The value is natural volume - actual volume may be affected by upstream water management.

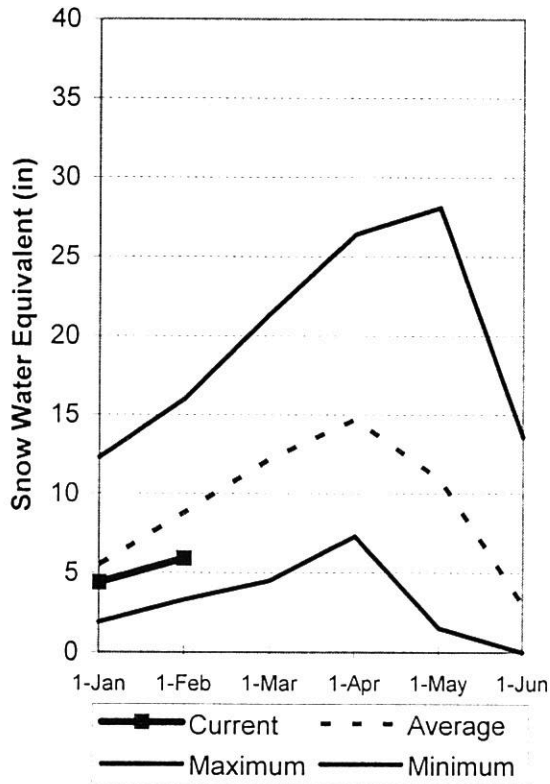
# Sevier and Beaver River Basins

Feb 1, 2007

Snowpack on the Sevier River Basin are much below normal at 67% of average, about 78% of last year and down 13% relative to last month. Individual sites range from 38% to 89% of average. The Sevier River has a 19% chance at getting back to average snowpack this season. Precipitation during January was much below average at 44% of normal, bringing the seasonal accumulation (Oct-Jan) to 96% of average. Soil moisture estimates in runoff producing areas are at 44% of saturation (Sevier) in the upper 2 feet of soil compared to 42% last year. Streamflow forecasts range from 24% to 67% of average. Reservoir storage is at 71% of capacity, 14% less than last year. Surface Water Supply Indices are: Upper Sevier 60%, Lower Sevier 45% and Beaver 44%. Water supply conditions are near average due to reservoir storage but with poor streamflow expected

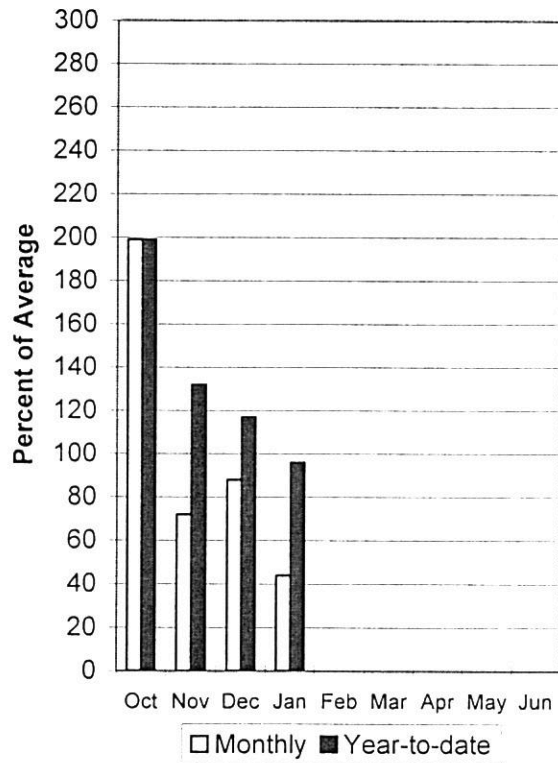
## Sevier River Snowpack

2/1/2007



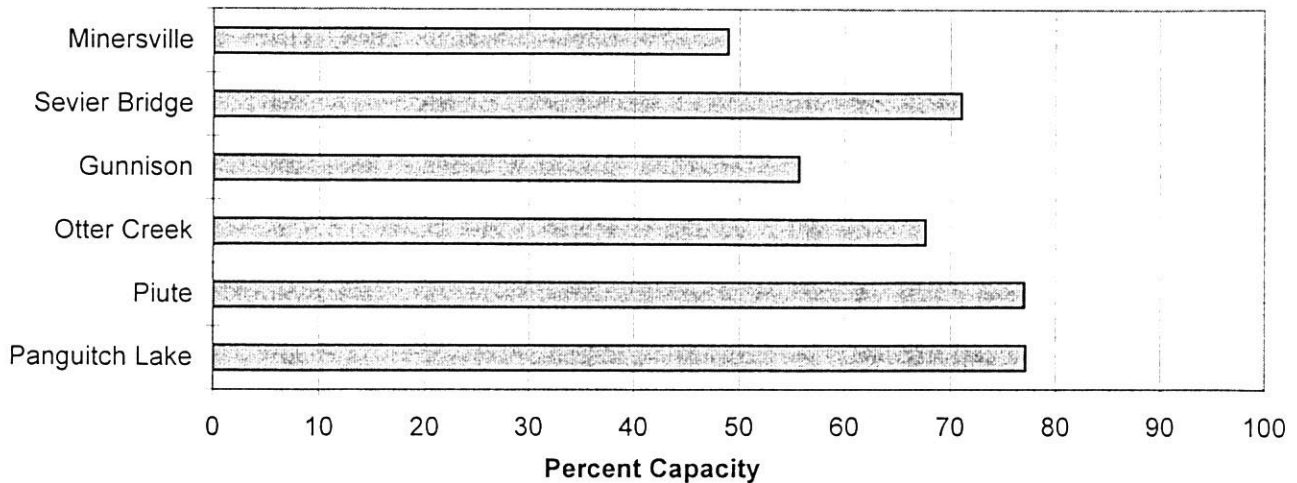
## Sevier River Precipitation

2/1/2007



## Reservoir Storage

2/1/2007



SEVIER & BEAVER RIVER BASINS  
Streamflow Forecasts - February 1, 2007

Forecast Point	Forecast Period	<<===== Drier ===== Future Conditions ===== Wetter =====>>						30-Yr Avg. (1000AF)
		90% (1000AF)	70% (1000AF)	Chance Of Exceeding *		30% (1000AF)	10% (1000AF)	
				50% (1000AF)	(% AVG.)			
Sevier River at Hatch	APR-JUL	18.8	28	36	66	45	59	55
Sevier River nr Kingston	APR-JUL	35	49	60	67	72	92	89
EF Sevier R nr Kingston	APR-JUL	7.7	16.8	25	66	35	52	38
Sevier R blw Piute Dam	APR-JUL	35	58	76	60	97	133	126
Clear Creek Abv Diversions Nr Sevier	APR-JUL	5.8	10.3	14.0	64	18.3	26	22
Salina Creek at Salina	APR-JUL	1.3	5.3	9.7	49	15.4	26	19.7
Manti Ck Blw Dugway Ck Nr Manti	APR-JUL	7.7	11.1	13.8	75	16.8	22	18.3
Sevier R nr Gunnison	APR-JUL	89	126	155	55	187	238	280
Chicken Creek nr Levan	APR-JUL	0.1	0.9	1.8	40	3.0	5.3	4.5
Oak Creek nr Oak City	APR-JUL	0.3	0.6	1.0	58	1.4	2.1	1.7
Beaver River nr Beaver	APR-JUL	7.4	12.7	17.1	63	22	31	27
Minersville Reservoir inflow	APR-JUL	0.3	1.9	4.0	24	6.8	12.2	16.6

SEVIER & BEAVER RIVER BASINS Reservoir Storage (1000 AF) - End of January					SEVIER & BEAVER RIVER BASINS Watershed Snowpack Analysis - February 1, 2007			
Reservoir	Usable Capacity	*** Usable Storage ***			Watershed	Number of Data Sites	This Year as % of	
		This Year	Last Year	Avg			Last Yr	Average
GUNNISON	20.3	11.3	14.9	13.1	UPPER SEVIER RIVER (south	8	102	69
MINERSVILLE (RkyFd)	23.3	11.4	19.8	14.4	EAST FORK SEVIER RIVER	3	104	68
OTTER CREEK	52.5	35.5	45.0	36.5	SOUTH FORK SEVIER RIVER	5	100	69
PIUTE	71.8	55.3	57.7	49.5	LOWER SEVIER RIVER (inclu	6	67	70
SEVIER BRIDGE	236.0	167.7	208.1	159.6	BEAVER RIVER	2	67	57
PANGUITCH LAKE	22.3	17.2	18.0	131.4	SEVIER & BEAVER RIVER BAS	16	80	67

\* 90%, 70%, 50%, 30%, and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table.

The average is computed for the 1971-2000 base period.

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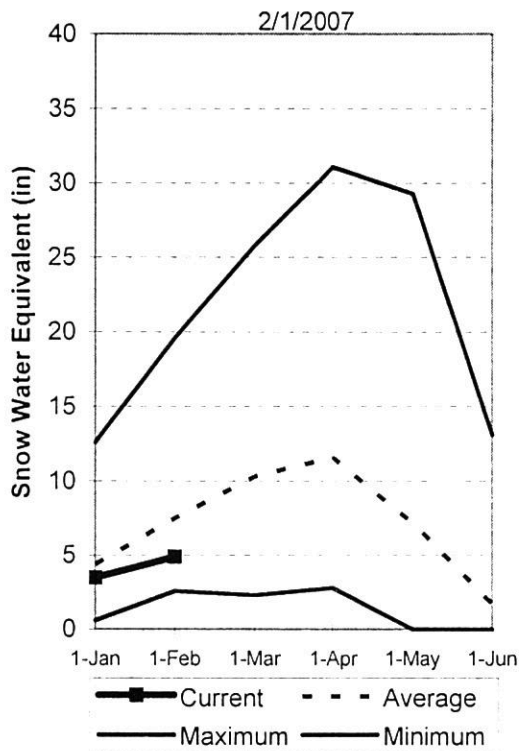


# E. Garfield, Kane, Washington, & Iron Co.

February 1, 2007

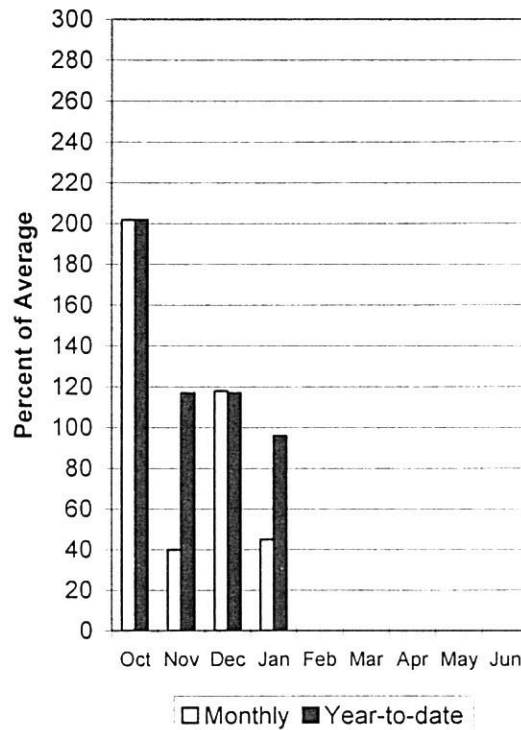
Snowpacks in this region are much below normal at 65% of average, about 121% of last year and down 15% relative to last month. These watersheds have a 33% chance of reaching average snowpack this season. Individual sites range from 31% to 108% of average. Precipitation in the month of January was much below average at 45%, bringing the seasonal accumulation (Oct-Jan) to 96% of average. Soil moisture estimates in runoff producing areas are at 31% of saturation in the upper 2 feet of soil compared to 27% last year. Forecast streamflows range from 49% to 59% of average. Reservoir storage is at 77% of capacity, 10% less than last year. The Surface Water Supply Index is at 50%, indicating average water supply conditions.

## Southwest Utah Snowpack



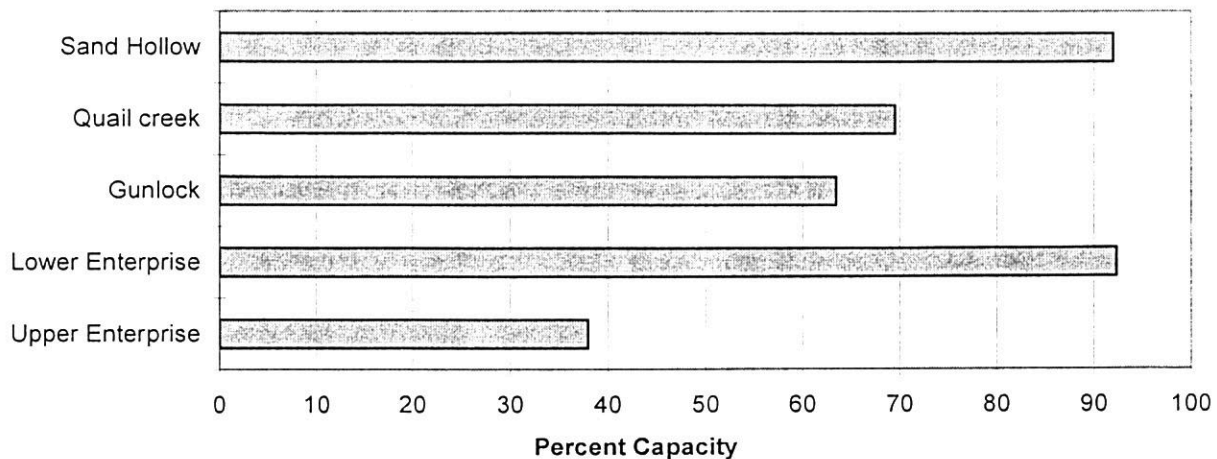
## Southwest Utah Precipitation

2/1/2007



## Reservoir Storage

2/1/2007



E. GARFIELD, KANE, WASHINGTON, & IRON Co.  
Streamflow Forecasts - February 1, 2007

Forecast Point	Forecast Period	<<===== Drier =====		Future Conditions		===== Wetter =====>>		30-Yr Avg. (1000AF)
		Chance Of Exceeding *						
		90% (1000AF)	70% (1000AF)	50% (1000AF)	(% AVG.)	30% (1000AF)	10% (1000AF)	
Lake Powell Inflow (2)	APR-JUL	2760	4630	5900	74	7170	9040	7930
Virgin River at Virgin	APR-JUL	19.2	28	38	59	50	69	64
Virgin River near Hurricane	APR-JUL	13.8	24	37	54	52	80	69
Santa Clara River nr Pine Valley	APR-JUL	0.8	2.0	3.1	56	4.5	6.9	5.5
Coal Creek nr Cedar City	APR-JUL	6.8	10.6	13.7	71	17.2	23	19.3

E. GARFIELD, KANE, WASHINGTON, & IRON Co.  
Reservoir Storage (1000 AF) - End of January

E. GARFIELD, KANE, WASHINGTON, & IRON Co.  
Watershed Snowpack Analysis - February 1, 2007

Reservoir	Usable Capacity	*** Usable Storage ***			Watershed	Number of Data Sites	This Year as % of	
		This Year	Last Year	Avg			Last Yr	Average
GUNLOCK	10.4	6.6	10.4	5.7	VIRGIN RIVER	5	111	65
LAKE POWELL	24322.0	11734.0	11222.0	---	PAROWAN	2	92	72
QUAIL CREEK	40.0	27.8	35.3	26.5	ENTERPRISE TO NEW HARMONY	2	176	49
UPPER ENTERPRISE	10.0	3.8	9.0	---	COAL CREEK	2	99	70
LOWER ENTERPRISE	2.6	2.4	0.0	38.0	ESCALANTE RIVER	2	134	77
					E. GARFIELD, KANE, WASHIN	9	119	65

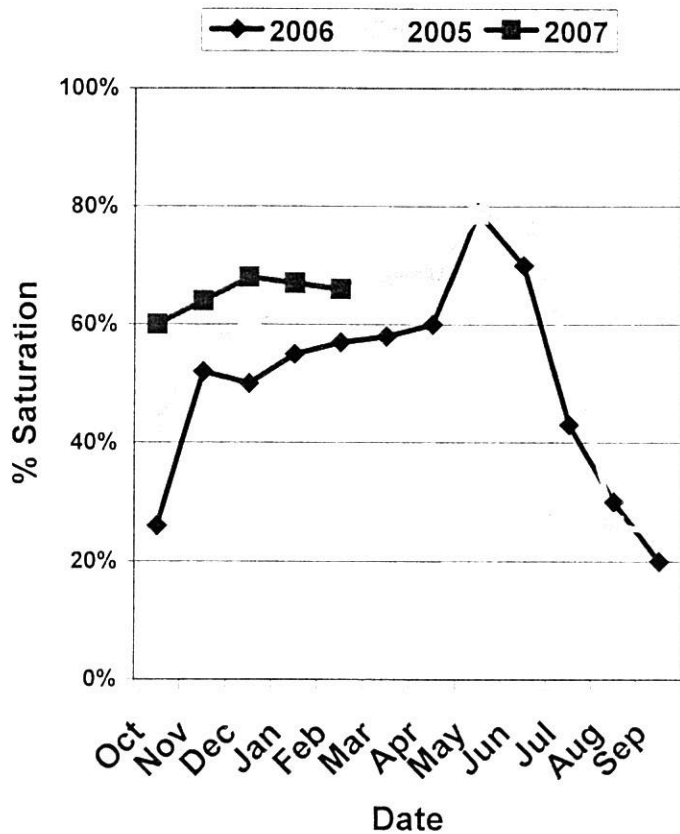
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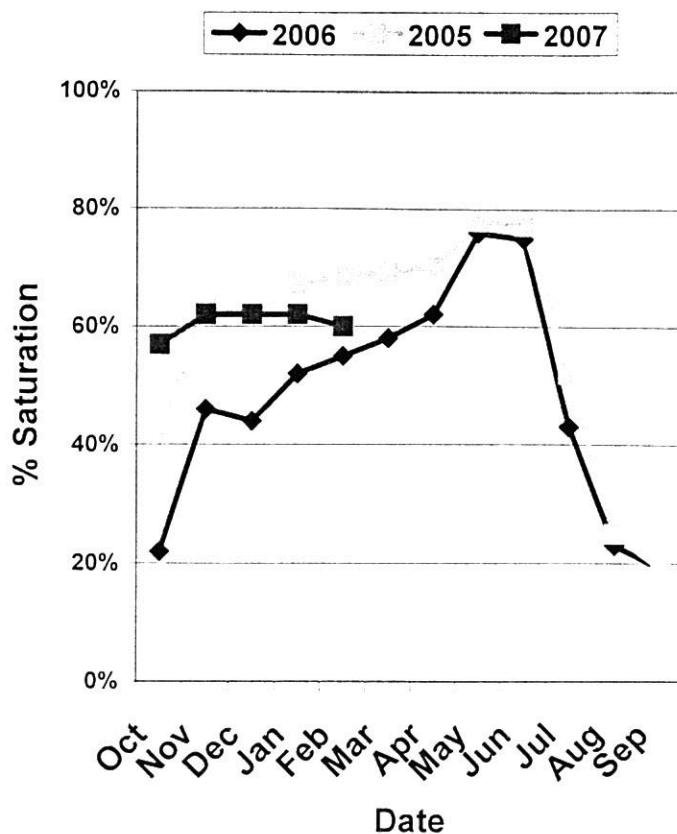
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# Watershed Soil Moisture Charts for Utah Water Supply

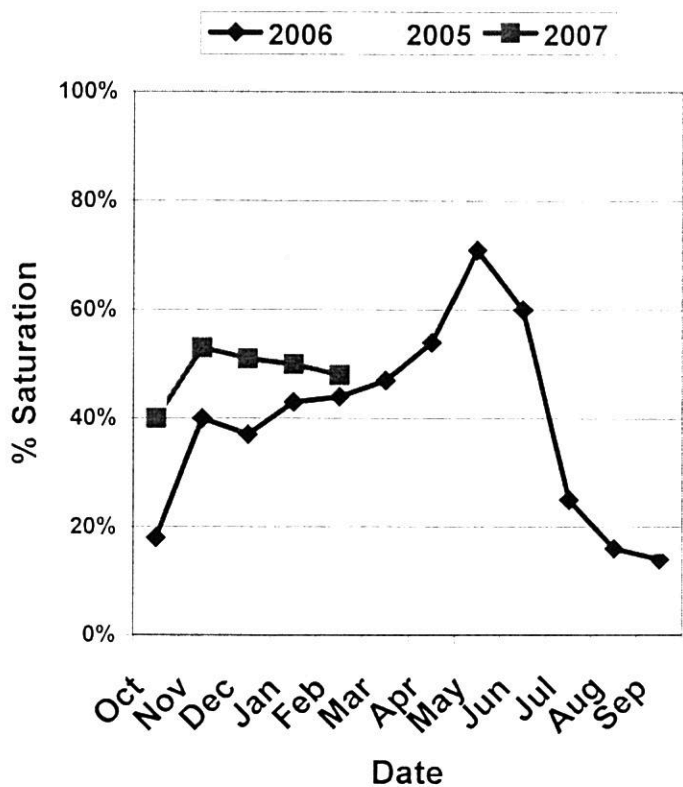
## Bear River Soil Moisture



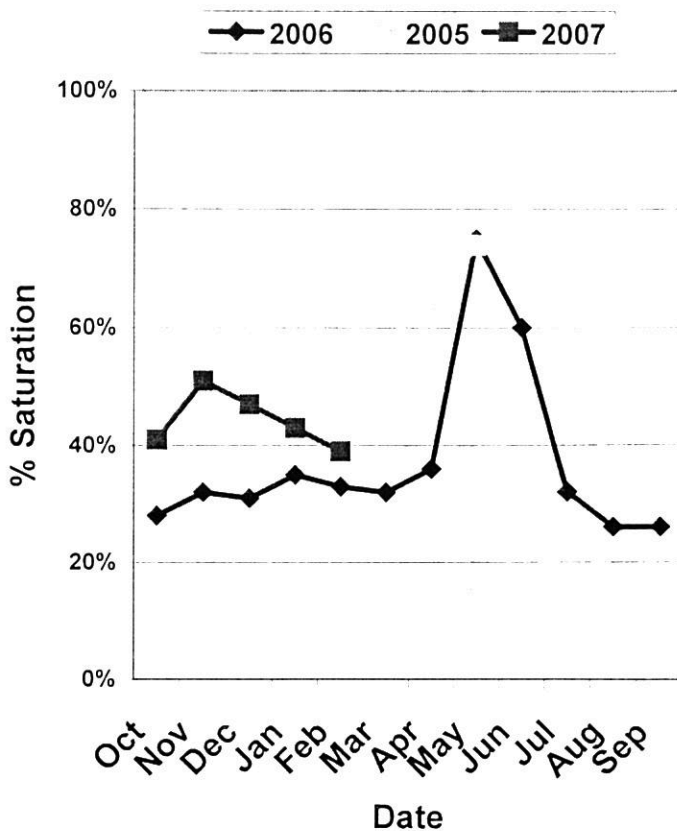
## Weber River Soil Moisture



## Jordan/Provo River Soil Moisture



## Uintah Basin Soil Moisture





**UTAH  
SURFACE WATER SUPPLY INDEX**

**Snow Surveys NRCS USDA**

**Basin or Region SWSI/% Percentile Years with**

**1-Feb-07 Similar SWSI**

Bear River	-2.43	21%	95,02,06,90
Ogden River	-2.03	26%	04,02,00,91
Weber River	-3.15	12%	95,02,06,90
Provo	-0.17	48%	78,88,79,00
West Uintah Basin	1.50	68%	96,86,05,06
East Uintah Basin	-1.01	38%	88,92,80,82
Price River	0.17	52%	73,99,87,70
San Rafael	-0.23	47%	99,87,00,74
Moab	-0.89	39%	99,96,82,91
Upper Sevier River	0.80	60%	70,81,97,06
Lower Sevier River	-0.43	45%	68,76,89,71
Beaver River	-0.52	44%	75,62,67,71
Virgin River	0.00	50%	86,87,99,01

Snow Surveys

245 N Jimmy Doolittle Rd  
Salt Lake City, UT  
(801) 524-5213

SWSI Scale: -4 to 4  
Percentile: 0 -  
100%

## What is a Surface Water Supply Index?

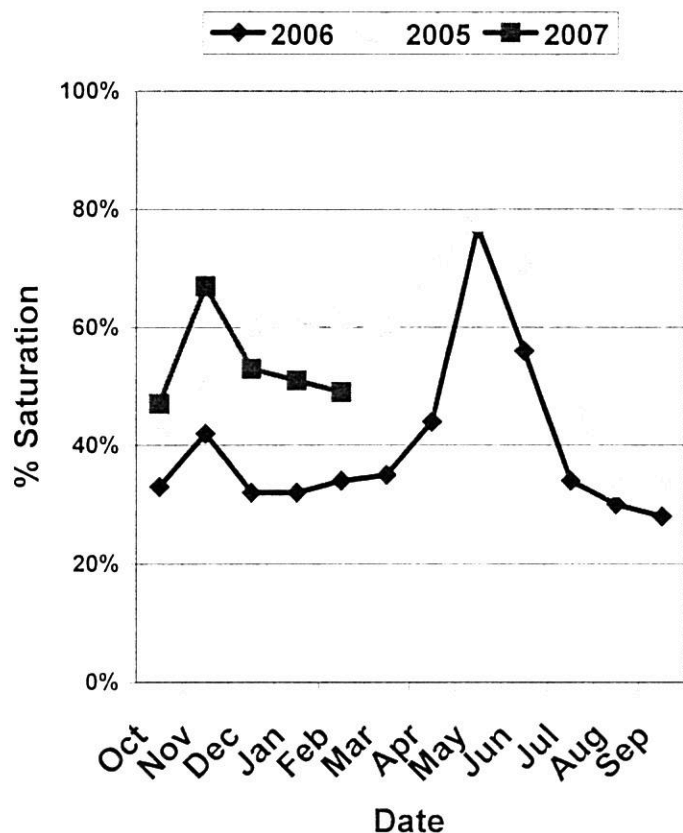
The Surface Water Supply Index (SWSI) is a predictive indicator of total surface water availability within a watershed for the spring and summer water use seasons. The index is calculated by combining pre-runoff reservoir storage (carryover) with forecasts of spring and summer streamflow which are based on current snowpack and other hydrologic variables. SWSI values are scaled from +4.1 (abundant supply) to -4.1 (extremely dry) with a value of zero (0) indicating median water supply as compared to historical analysis. SWSI's are calculated in this fashion to be consistent with other hydroclimatic indicators such as the Palmer Drought Index and the Precipitation index.

Utah Snow Surveys has also chosen to display the SWSI as a PERCENT CHANCE OF NON-EXCEEDANCE. While this is a very cumbersome name, it has the simplest application. It can be best thought of as a simple scale of 1 to 99 with 1 being the drought of record (driest possible conditions) and 99 being the flood of record (wettest possible conditions) and a value of 50 representing average conditions. This rating scale is a percentile rating as well, for example a SWSI of 75% means that this years water supply is greater than 75% of all historical events and that only 25% of the time has it been exceeded. Conversely a SWSI of 10% means that 90% of historical events have been greater than this one and that only 10% have had less total water supply. This scale is far more intuitive for most people and is totally comparable between basins: a SWSI of 50% means the same relative ranking on watershed A as it does on watershed B, which may not be strictly true of the +4 to -4 scale.

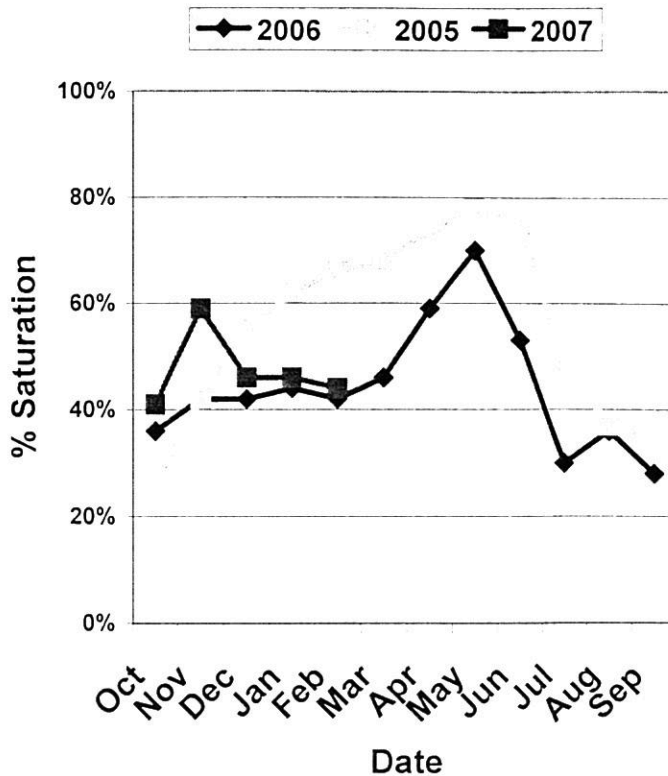
For more information on the SWSI go to: [www.ut.nrcs.usda.gov/snow/](http://www.ut.nrcs.usda.gov/snow/) on the water supply page. The entire period of historical record for reservoir storage and streamflow is available.

# Watershed Soil Moisture Charts for Utah Water Supply

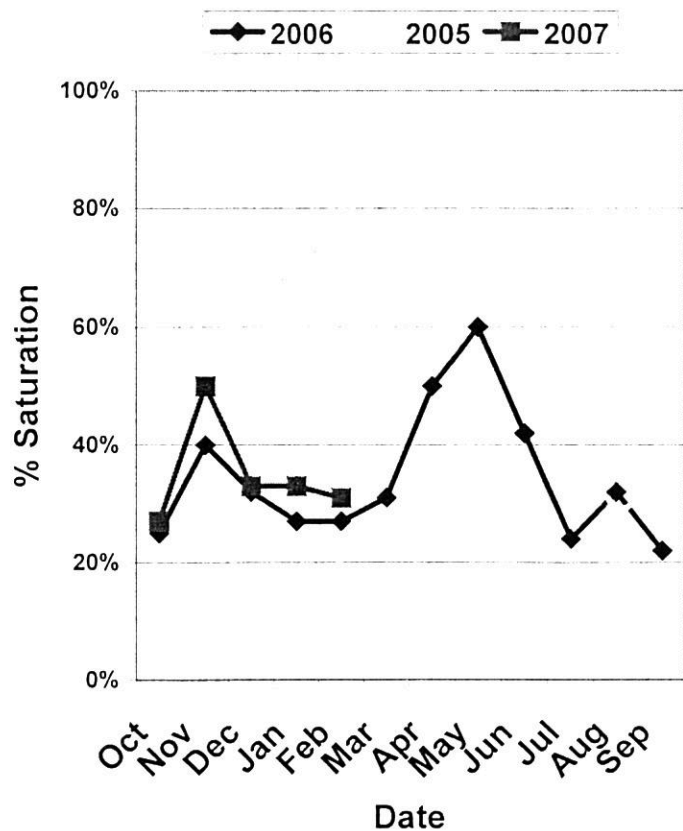
## South East Utah Soil Moisture



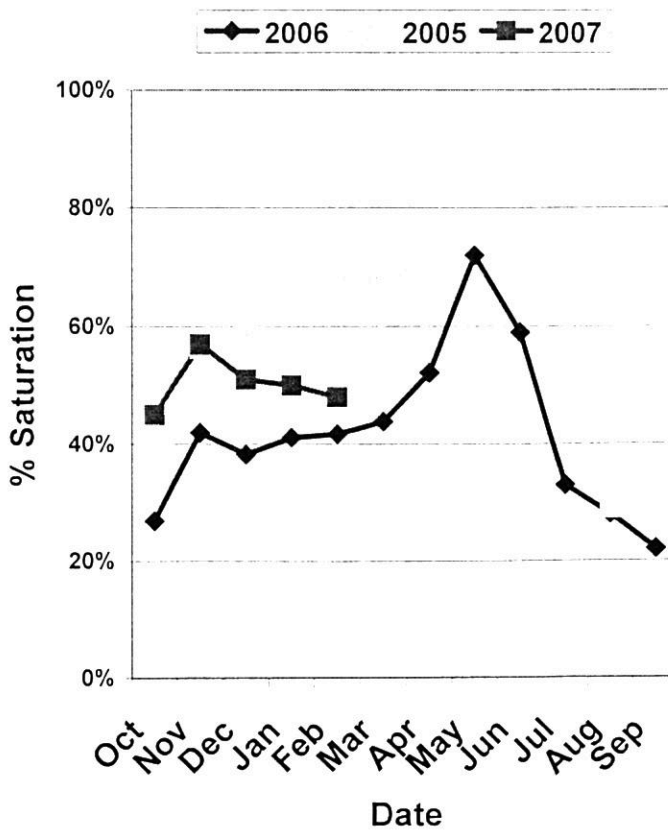
## Sevier/Beaver River Soil Moisture



## Southwest Utah Soil Moisture



## Statewide Soil Moisture



DATA CURRENT AS OF:02/02/07 07:18:08

S N O W C O U R S E D A T A

FEBRUARY 2007

SNOW COURSE	ELEV.	DATE	SNOW DEPTH	WATER CONTENT	LAST YEAR	AVERAGE 71-00
AGUA CANYON SNOTEL	8900	2/01	17	3.8	3.5	5.4
ALTA CENTRAL	8800	2/01	49	12.2	34.8	24.7
BEAVER DAMS SNOTEL	8000	2/01	23	3.9	8.4	7.0
BEAVER DIVIDE SNOTEL	8280	2/01	23	3.9	11.3	7.8
BEN LOMOND PK SNOTEL	8000	2/01	32	10.2	33.4	25.0
BEN LOMOND TR SNOTEL	6000	2/01	22	5.4	18.3	14.4
BEVAN'S CABIN	6450				-	-
BIG FLAT SNOTEL	10290	2/01	34	7.4	9.9	11.4
BIRCH CROSSING	8100				-	4.6
BLACK FLAT-U.M. CK S	9400	2/01	19	3.5	6.1	5.9
BLACK'S FORK GS-EF	9340				-	5.8
BLACK'S FORK JUNCTN	8930				-	5.9
BOX CREEK SNOTEL	9800	2/01	28	6.2	7.5	8.0
BRIAN HEAD	10000				-	11.8
BRIGHTON SNOTEL	8750	2/01	35	9.5	21.3	15.9
BRIGHTON CABIN	8700	1/30	40	10.7	23.3	17.5
BROWN DUCK SNOTEL	10600	2/01	40	8.5	14.0	11.1
BRYCE CANYON	8000				-	3.6
BUCK FLAT SNOTEL	9800	2/01	27	6.1	14.3	11.3
BUCK PASTURE	9700				-	-
BUCKBOARD FLAT	9000	1/23	26	5.8	3.6	-
BUG LAKE SNOTEL	7950	2/01	33	7.5	18.0	13.2
BURT'S-MILLER RANCH	7900				-	3.8
CAMP JACKSON SNOTEL	8600	2/01	25	3.1	2.8	9.0
CASCADE MOUNTAIN SNO	7770	2/01	25	6.0	14.0	-
CASTLE VALLEY SNOTEL	9580	2/01	27	4.6	6.4	7.7
CHALK CK #1 SNOTEL	9100	2/01	47	12.0	19.6	15.3
CHALK CK #2 SNOTEL	8200	2/01	38	8.6	10.3	9.9
CHALK CREEK #3	7500				-	5.6
CHEPETA SNOTEL	10300	2/01	35	7.4	7.8	8.3
CLAYTON SPRINGS SNTL	10000	2/01	31	5.5	4.7	-
CLEAR CK RIDG #1 SNT	9200	2/01	26	5.3	14.8	12.3
CLEAR CK RIDG #2 SNT	8000	2/01	29	5.4	10.4	9.4
CORRAL	8200				-	-
CURRANT CREEK SNOTEL	8000	2/01	18	4.1	9.4	6.8
DANIELS-STRAWBERRY S	8000	2/01	26	6.0	15.9	11.1
DILL'S CAMP SNOTEL	9200	2/01	24	4.1	10.9	8.4
DONKEY RESERVOIR SNO	9800	2/01	29	5.5	3.5	5.1
DRY BREAD POND SNTL	8350	2/01	37	8.1	16.9	14.5
DRY FORK SNOTEL	7160	2/01	34	7.6	10.4	10.1
EAST WILLOW CREEK SN	8250	2/01	20	3.2	1.8	4.9
FARMINGTON U. SNOTEL	8000	2/01	48	12.6	31.4	20.3
FARMINGTON L. SNOTEL	6780	2/01	32	7.9	17.7	-
FARNSWORTH LK SNOTEL	9600	2/01	47	10.2	9.8	11.4
FISH LAKE	8700				-	5.1
FIVE POINTS LAKE SNO	10920	2/01	32	8.2	12.6	9.8
G.B.R.C. HEADQUARTER	8700				-	-
G.B.R.C. MEADOWS	10000				-	14.5
GARDEN CITY SUMMIT	7600				-	11.1
GARDNER PEAK SNOTEL	8350	2/01	19	4.2	4.2	-
GEORGE CREEK	8840				-	-
GOOSEBERRY R.S.	8400				-	7.5
GOOSEBERRY R.S. SNTL	7900	2/01	24	4.5	6.5	5.8
GUTZ PEAK SNOTEL	6820	2/01	10	2.7	1.5	-
HARDSCRABBLE SNOTEL	7250	2/01	30	7.7	19.6	10.9
HARRIS FLAT SNOTEL	7700	2/01	6	1.8	1.4	4.7
HAYDEN FORK SNOTEL	9100	2/01	29	6.3	14.8	9.8
HENRY'S FORK	10000				-	-
HEWINTA SNOTEL	9500	2/01	30	5.4	7.9	6.7
HICKERSON PARK SNTL	9100	2/01	29	4.4	2.7	4.4
HIDDEN SPRINGS	5500	1/30	9	2.3	5.9	5.5
HOBBLE CREEK SUMMIT	7420				-	9.6
HOLE-IN-ROCK SNOTEL	9150	2/01	29	4.9	5.0	4.1
HORSE RIDGE SNOTEL	8260	2/01	36	8.6	21.5	15.1
HUNTINGTON-HORSESHOE	9800				-	15.1
INDIAN CANYON SNOTEL	9100	2/01	25	5.7	6.2	6.9
JOHNSON VALLEY	8850				-	4.6
JONES CORRAL G.S.	9720				-	-



SNOW COURSE	ELEV.	DATE	SNOW DEPTH	WATER CONTENT	LAST YEAR	AVERAGE 71-00
KILFOIL CREEK	7300				-	9.4
KILLYON CANYON	6300	1/30	14	2.6	9.0	11.5
KIMBERLY MINE SNOTEL	9300	2/01	32	7.2	7.4	9.4
KING'S CABIN SNOTEL	8730	2/01	25	4.4	4.1	6.8
KLONDIKE NARROWS	7400				-	12.7
KOLOB SNOTEL	9250	2/01	34	7.6	6.7	12.1
LAKEFORK #1 SNOTEL	10100	2/01	25	5.6	7.1	7.9
LAKEFORK BASIN SNTL	10900	2/01	39	7.9	15.6	11.7
LAKEFORK MOUNTAIN #3	8400				-	4.6
LAMBS CANYON	7400	1/31	34	7.6	15.0	11.2
LASAL MOUNTAIN LOWER	8800				4.0	5.9
LASAL MOUNTAIN SNTL	9850	2/01	24	5.1	6.8	7.8
LIGHTNING RIDGE SNTL	8220	2/01	31	7.4	16.3	-
LILY LAKE SNOTEL	9050	2/01	39	7.5	10.4	8.2
LITTLE BEAR LOWER	6000				-	7.1
LITTLE BEAR SNOTEL	6550	2/01	21	4.8	11.4	9.1
LITTLE GRASSY SNOTEL	6100	2/01	4	1.5	.0	4.9
LONG FLAT SNOTEL	8000	2/01	20	3.6	2.9	5.6
LONG VALLEY JCT. SNT	7500	2/01	12	3.2	2.0	4.4
LOOKOUT PEAK SNOTEL	8200	2/01	40	10.3	25.0	15.4
LOST CREEK RESERVOIR	6130				-	3.8
LOUIS MEADOW SNOTEL	6700	2/01	29	8.7	18.2	-
MAMMOTH-COTTONWD SNT	8800	2/01	26	5.7	14.5	12.9
MERCHANT VALLEY SNTL	8750	2/01	23	3.7	6.7	8.2
MIDDLE CANYON	7000				-	9.1
MIDWAY VALLEY SNOTEL	9800	2/01	43	10.9	10.5	13.9
MILL CREEK	6950	1/31	33	7.5	14.5	12.5
MILL-D NORTH SNOTEL	8960	2/01	36	8.2	22.6	15.8
MILL-D SOUTH FORK	7400	1/30	30	6.6	19.8	13.0
MINING FORK SNOTEL	8000	2/01	31	8.0	13.8	9.3
MONTE CRISTO SNOTEL	8960	2/01	45	11.4	23.2	18.2
MOSBY MTN. SNOTEL	9500	2/01	30	5.5	6.2	7.0
MT. BALDY R.S.	9500				-	14.9
MUD CREEK #2	8600				-	8.6
OAK CREEK	7760				-	-
PANGUITCH LAKE R.S.	8200				-	-
PARLEY'S CANYON SNTL	7500	2/01	31	6.8	14.0	11.6
PARRISH CREEK SNOTEL	7740	2/01	38	10.4	19.3	-
PAYSON R.S. SNOTEL	8050	2/01	25	5.8	11.9	11.6
PICKLE KEG SNOTEL	9600	2/01	30	6.3	12.5	10.0
PINE CREEK SNOTEL	8800	2/01	40	11.2	11.0	12.9
RED PINE RIDGE SNTL	9200	2/01	27	6.0	12.5	10.5
REDDEN MINE LOWER	8500				-	10.8
REES'S FLAT	7300				-	8.7
ROCK CREEK SNOTEL	7900	2/01	20	3.8	7.7	5.6
ROCKY BN-SETTLEMT SN	8900	2/01	39	9.7	14.4	15.1
SEELEY CREEK SNOTEL	10000	2/01	23	5.9	9.1	8.8
SMITH MOREHOUSE SNTL	7600	2/01	30	6.8	11.1	9.2
SNOWBIRD SNOTEL	9700	2/01	44	10.9	33.9	20.1
SPIRIT LAKE	10300				-	7.4
SQUAW SPRINGS	9300				-	4.6
STEEL CREEK PARK SNO	10100	2/01	36	7.8	10.7	9.4
STILLWATER CAMP	8550				-	6.5
STRAWBERRY DIVIDE SN	8400	2/01	28	5.8	14.1	11.9
SUSC RANCH	8200				-	5.2
TALL POLES	8800				-	8.4
TEMPLE FORK SNOTEL	7410	2/01	29	5.7	16.5	-
THAYNES CANYON SNTL	9200	2/01	45	10.2	19.5	13.8
THISTLE FLAT	8500				-	-
TIMBERLINE	9100				-	-
TIMPANOGOS DIVIDE SN	8140	2/01	33	6.8	18.6	15.0
TONY GROVE LK SNOTEL	8400	2/01	49	14.5	38.7	23.4
TONY GROVE R.S.	6250				-	9.0
TRIAL LAKE	9960				-	14.7
TRIAL LAKE SNOTEL	9960	2/01	34	8.3	21.6	15.7
TROUT CREEK SNOTEL	9400	2/01	27	5.5	4.0	5.8
UPPER JOES VALLEY	8900				-	6.8
VERNON CREEK SNOTEL	7500	2/01	21	3.5	5.7	7.1
VIPONT	7670				-	-
WEBSTER FLAT SNOTEL	9200	2/01	28	5.8	6.3	9.8
WHITE RIVER #1 SNTL	8550	2/01	23	3.8	8.5	8.3
WHITE RIVER #3	7400				-	5.8
WIDTSOE #3 SNOTEL	9500	2/01	25	3.9	2.9	7.1
WRIGLEY CREEK	9000				-	6.7
YANKEE RESERVOIR	8700				-	5.6



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YOU MAY OBTAIN THIS PRODUCT AS WELL AS CURENT SNOW, PRECIPITATION,  
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<http://www.ut.nrcs.usda.gov/snow/>

Snow Survey, NRCS, USDA  
245 North Jimmy Doolittle Road  
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# **Utah Water Supply Outlook Report**

Natural Resources Conservation Service  
Salt Lake City, UT





# Utah Water Supply Outlook Report

## March, 2007



**Mt Baldy Snow Course, February 2007, Central Utah, Wasatch Plateau.  
Photo by Brooke Nelson, NRCS, USDA .**



# Water Supply Outlook Reports

## and Federal - State - Private Cooperative Snow Surveys

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### *How forecasts are made*

Most of the annual streamflow in the western United States originates as snowfall that has accumulated in the mountains during the winter and early spring. As the snowpack accumulates, hydrologists estimate the runoff that will occur when it melts. Measurements of snow water equivalent at selected manual snowcourses and automated SNOTEL sites, along with precipitation, antecedent streamflow, and indices of the El Niño / Southern Oscillation are used in computerized statistical and simulation models to prepare runoff forecasts. These forecasts are coordinated between hydrologists in the Natural Resources Conservation Service and the National Weather Service. Unless otherwise specified, all forecasts are for flows that would occur naturally without any upstream influences.

Forecasts of any kind, of course, are not perfect. Streamflow forecast uncertainty arises from three primary sources: (1) uncertain knowledge of future weather conditions, (2) uncertainty in the forecasting procedure, and (3) errors in the data. The forecast, therefore, must be interpreted not as a single value but rather as a range of values with specific probabilities of occurrence. The middle of the range is expressed by the 50% exceedance probability forecast, for which there is a 50% chance that the actual flow will be above, and a 50% chance that the actual flow will be below, this value. To describe the expected range around this 50% value, four other forecasts are provided, two smaller values (90% and 70% exceedance probability) and two larger values (30%, and 10% exceedance probability). For example, there is a 90% chance that the actual flow will be more than the 90% exceedance probability forecast. The others can be interpreted similarly.

The wider the spread among these values, the more uncertain the forecast. As the season progresses, forecasts become more accurate, primarily because a greater portion of the future weather conditions become known; this is reflected by a narrowing of the range around the 50% exceedance probability forecast. Users should take this uncertainty into consideration when making operational decisions by selecting forecasts corresponding to the level of risk they are willing to assume about the amount of water to be expected. If users anticipate receiving a lesser supply of water, or if they wish to increase their chances of having an adequate supply of water for their operations, they may want to base their decisions on the 90% or 70% exceedance probability forecasts, or something in between. On the other hand, if users are concerned about receiving too much water (for example, threat of flooding), they may want to base their decisions on the 30% or 10% exceedance probability forecasts, or something in between. Regardless of the forecast value users choose for operations, they should be prepared to deal with either more or less water. (Users should remember that even if the 90% exceedance probability forecast is used, there is still a 10% chance of receiving less than this amount.) By using the exceedance probability information, users can easily determine the chances of receiving more or less water.

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# STATE OF UTAH GENERAL OUTLOOK

Mar 1, 2007

## SUMMARY

February was, thank goodness -not January. A return to some small sense of normalcy is quite welcome after the bitter cold and dry of that hopefully soon to be forgotten month. In northern Utah, there was near normal snowpack accumulation in the mountains. February accumulations - that amount of snow that fell in February - ranged from 90% of average in the Uintahs to 106% of average on the Weber watershed. Southern Utah was not nearly as fortunate and received only 43% to 71% of average February accumulations. This was not nearly sufficient to bring snowpacks back to near normal conditions. What was needed was 140% to 170% of normal accumulation. This leaves us in the current position of having snowpacks that range from 59% of average in southwest Utah to 78% of average on the Uintahs. Most areas have between 60% and 75% of average snowpacks. Here are the dismal numbers - how much snow accumulation do we need in March to get to average by April 1: Bear River - 234%, Weber - 230%, Utah Lake - 245%, Uintahs - 201%, SE Utah - 303%, Sevier - 250%, SW Utah - 421% and statewide - 243%. While those numbers are discouraging enough, we must consider the probability of getting between 200% and 400% of normal snow accumulation in March: Bear - 0%, Weber - 0%, Utah Lake - 0%, Uintahs - 3%, SE Utah - 0%, Sevier - 8%, SW Utah - 14% and statewide - 0%. While it is not likely that we are going to get back to average, given just average March accumulation would put the watersheds at: Bear - 77%, Weber - 77%, Utah Lake - 75%, Uintahs - 82%, SE Utah - 66%, Sevier - 75%, SW Utah - 75% and statewide - 76% by April 1, a little better than they are now. March needs to go big to take the sting out of this season. Soil moisture started the annual upswing this past month: Bear - 67%, Weber - 63%, Provo - 50%, Uintah Basin - 41%, southeast Utah - 48%, Sevier - 49%, southwest Utah - 45% and statewide - 50% of saturation. These values are a little higher than last year. In general, most areas of the state have excellent reservoir carryover. General water supply conditions range from below to much above average. Streamflow forecasts range from 16% to 86% of average. Surface Water Supply Indices range from 21% on the Bear River, to 79% on the west side of the Uintah Basin.

## SNOWPACK

March first snowpacks as measured by the NRCS SNOTEL are as follows: Bear - 72%, Weber - 72%, Provo - 69%, Uintahs - 78%, southeast Utah - 60%, Sevier - 69%, southwest Utah - 59% and the statewide figure is 71% of average. Recent storms have brought snowpacks up 5% to 8% state wide and have put at least some snow back on south facing aspects and lower elevations. Utah needs between 200% and 400% of normal snowpack accumulation in March to reach average conditions. The probability of getting this accumulation ranges between 0 and 14% with most areas at 0%.

## PRECIPITATION

Mountain precipitation during February was near normal in northern Utah (106%-110%) below to much below normal across southern Utah (60%-82%). This brings the seasonal accumulation (Oct-Feb) to 88% of average statewide and ranges from 83% on the Bear to 96% over southeastern Utah.

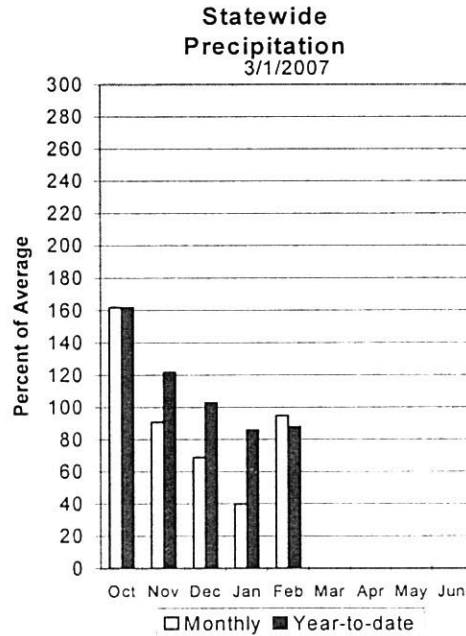
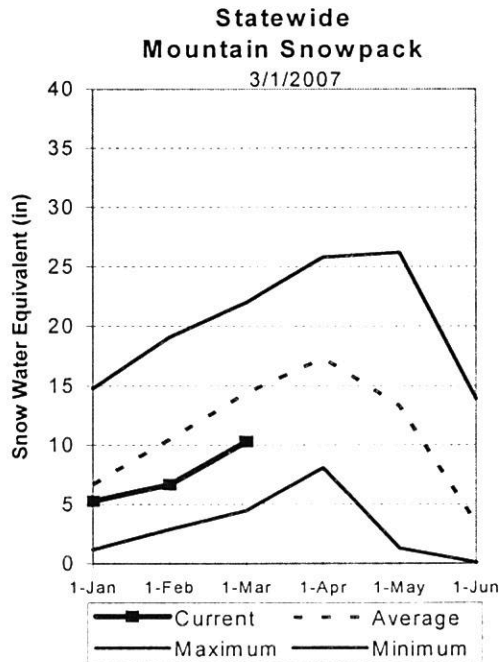
## RESERVOIRS

Storage in 41 of Utah's key irrigation reservoirs is at 71% of capacity up 3% from last month. This is also an increase of 3% from last year. Reservoirs across the State have been making

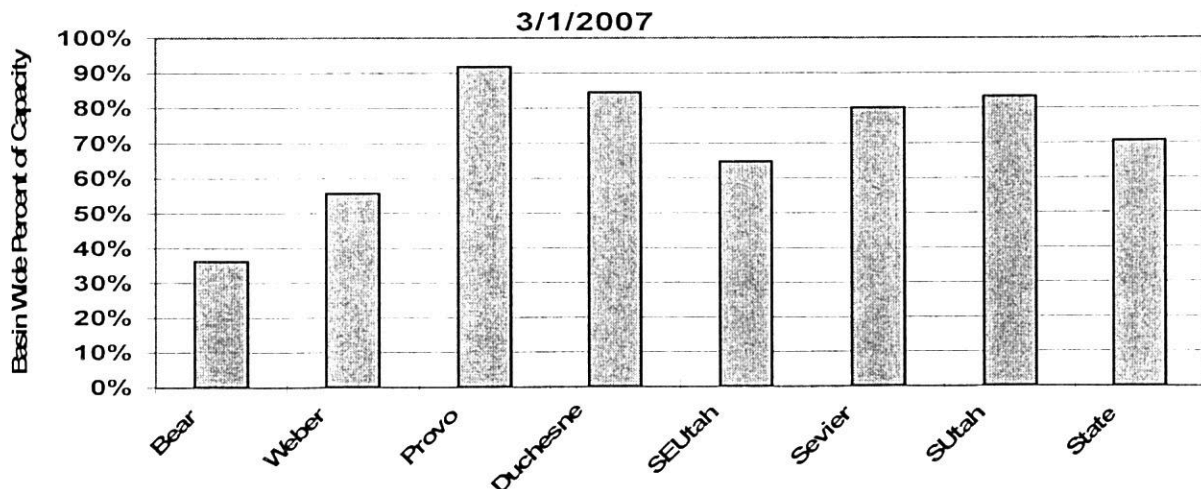
steady gains in storage. Bear Lake really is the last reservoir to remain in an extremely low condition due to the prolonged drought.

## STREAMFLOW

Snowmelt streamflows are expected to have a wide range from much below average to near average across the state of Utah this year. Forecast streamflows range from 16% on North Creek nr Monticello to 86% of average for the Bear River nr State Line. Most flows are forecast to be in the 50% to 70% range.



## Statewide Basin Reservoir Storage





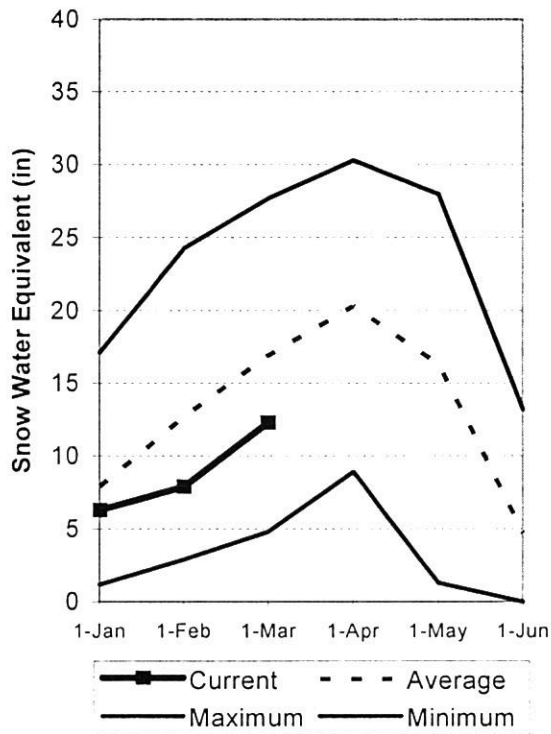
# Bear River Basin

March 1, 2007

Snowpacks on the Bear River Basin are below average at 73% of normal, about 59% of last year. Specific sites range from 56% to 113% of normal. February precipitation was average at 100%, which brings the seasonal accumulation (Oct-Feb) to 83% of average. Soil moisture levels in runoff producing areas are at 67% of saturation in the upper 2 feet of soil compared to 58% last year. This is due mainly to above average precipitation in October. Forecast streamflows range from much below average to below average (61%-86%) volumes this spring. Reservoir storage is low at 36% of capacity, 11% more than last year. The Surface Water Supply Index is at 21% for the Bear River, or 79% of years have had more total water available. Water supply conditions are much below normal due to low streamflow and reservoir storage. 234% of normal increase in March SWE is need for an average April 1<sup>st</sup> SWE.

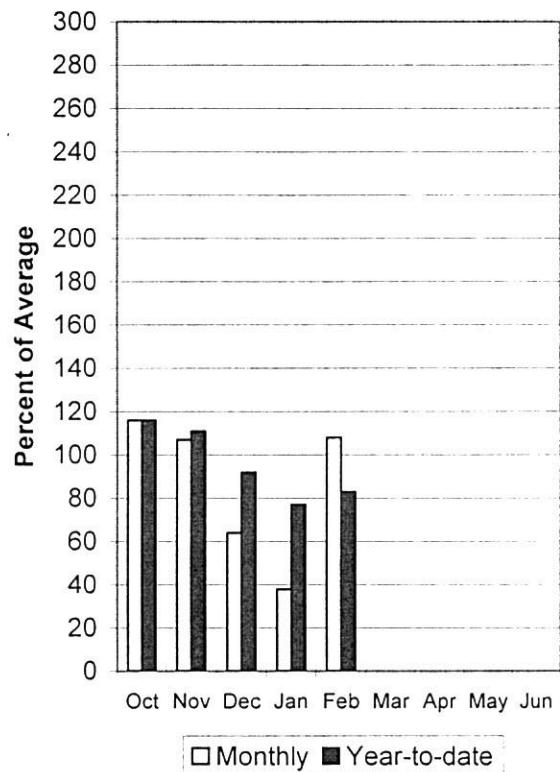
## Bear River Snowpack

3/1/2007



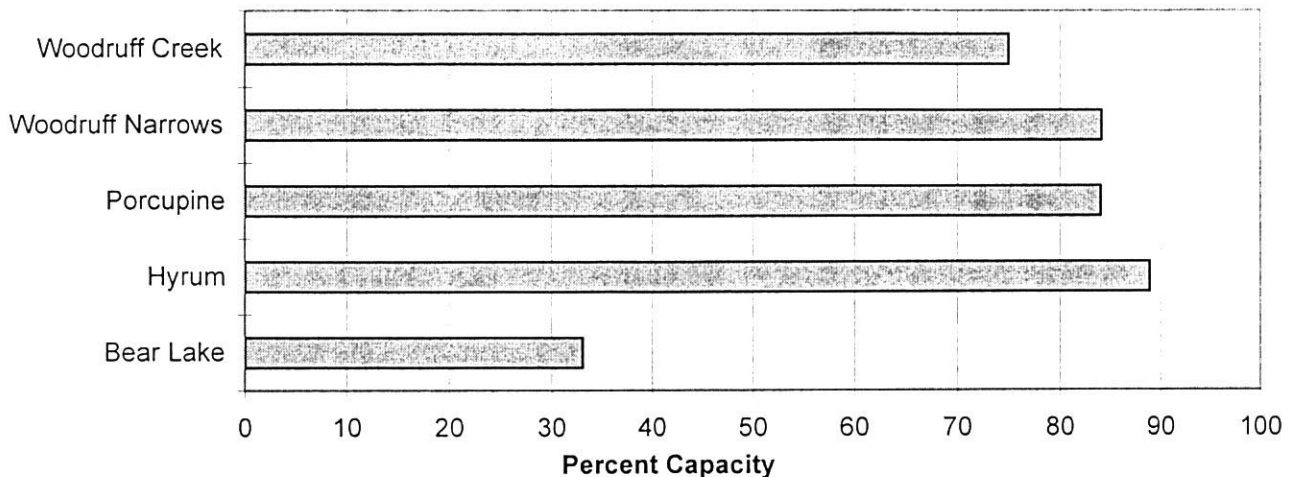
## Bear River Precipitation

3/1/2007



## Reservoir Storage

3/1/2007



BEAR RIVER BASIN  
Streamflow Forecasts - March 1, 2007

		<<----- Drier -----		Future Conditions -----		----- Wetter ----->>			
Forecast Point	Forecast Period	=====		Chance Of Exceeding *		=====		30-Yr Avg. (1000AF)	
		90% (1000AF)	70% (1000AF)	50% (1000AF)	(% AVG.)	30% (1000AF)	10% (1000AF)		
Bear River nr UT-WY State Line	APR-JUL	70	86	97	86	109	128	113	
Bear River ab Reservoir nr Woodruff	APR-JUL	52	81	105	77	132	176	136	
Big Creek nr Randolph	APR-JUL	1.1	2.1	3.0	61	4.0	5.8	4.9	
Smiths Fork nr Border	APR-JUL	47	60	70	68	81	98	103	
Bear River at Stewart Dam	APR-JUL	70	116	154	66	197	270	234	
Little Bear River at Paradise	APR-JUL	14.5	23	29	63	36	48	46	
Logan R Abv State Dam Nr Logan	APR-JUL	50	69	85	68	102	130	126	
Blacksmith Fk Abv Up&L Dam Nr Hyrum	APR-JUL	18.4	27	33	69	40	52	48	

BEAR RIVER BASIN Reservoir Storage (1000 AF) - End of February					BEAR RIVER BASIN Watershed Snowpack Analysis - March 1, 2007			
Reservoir	Usable Capacity	*** Usable Storage ***			Watershed	Number of Data Sites	This Year as % of	
		This Year	Last Year	Avg			Last Yr	Average
BEAR LAKE	1302.0	430.6	290.3	---	BEAR RIVER, UPPER (abv Ha	6	63	75
HYRUM	15.3	13.6	10.4	11.0	BEAR RIVER, LOWER (blw Ha	8	56	72
PORCUPINE	11.3	9.5	9.7	5.6	LOGAN RIVER	4	52	71
WOODRUFF NARROWS	57.3	48.2	35.0	27.6	RAFT RIVER	1	61	107
WOODRUFF CREEK	4.0	3.0	3.5	---	BEAR RIVER BASIN	14	59	73

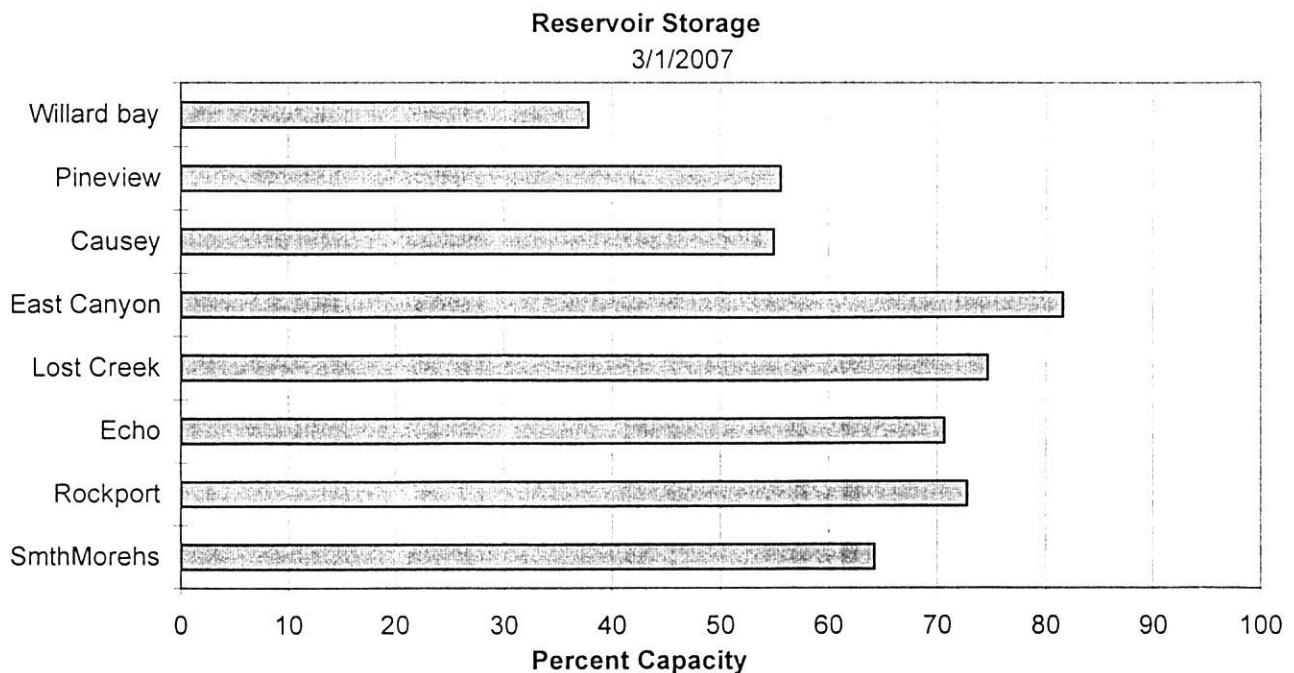
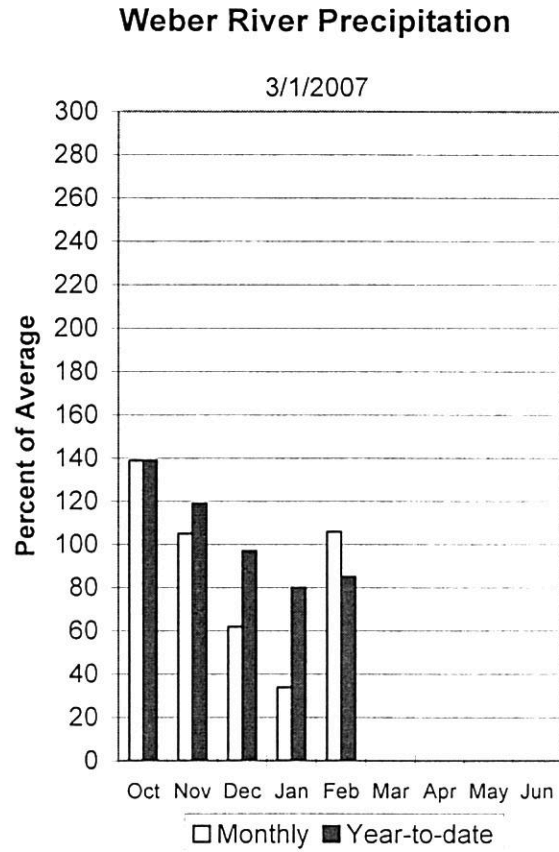
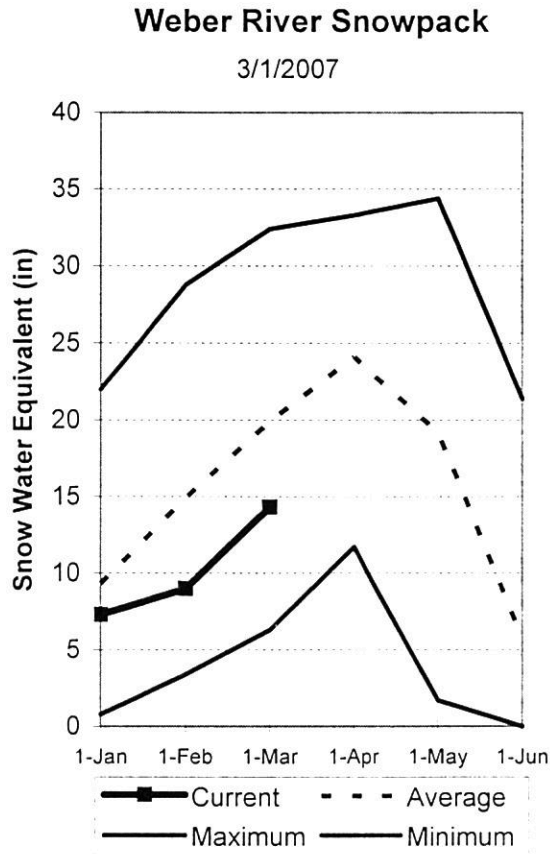
\* 90%, 70%, 50%, 30%, and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table.

The average is computed for the 1971-2000 base period.

- (1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.  
(2) - The value is natural volume - actual volume may be affected by upstream water management.

# Weber and Ogden River Basins March 1, 2007

Snowpack on the Weber and Ogden Watersheds is below average at 72%, about 62% of last year. Individual sites range from 32% to 94% of average. February precipitation was average at 106% bringing the seasonal accumulation (Oct-Feb) to 85% of average. Soil moisture levels in runoff producing areas are at 63% of saturation in the upper 2 feet of soil compared to 54% last year. Streamflow forecasts range from 55% to 89% of average. Reservoir storage is at 56% of capacity, 18% lower than last year. The Surface Water Supply Index is at 27% for the Weber River and at 26% for the Ogden River. Overall water supply conditions are below normal with very little probability of reaching April 1<sup>st</sup> average snow water equivalent





WEBER & OGDEN WATERSHEDS in Utah  
Streamflow Forecasts - March 1, 2007

Forecast Point	Forecast Period	<<===== Drier ===== Future Conditions ===== Wetter =====>>						30-Yr Avg. (1000AF)
		90% (1000AF)		50% (1000AF)		30% (1000AF)		
		70% (1000AF)	Chance Of Exceeding * (% AVG.)	10% (1000AF)				
Smith & Morehouse Res inflow	APR-JUL	20	25	28	82	31	36	34
Weber River nr Oakley	APR-JUL	70	88	100	81	112	130	123
Weber River nr Coalville	APR-JUL	88	97	103	75	109	119	137
Chalk Creek at Coalville	APR-JUL	21	32	40	89	49	65	45
Echo Reservoir inflow	APR-JUL	88	119	140	78	161	192	179
Lost Creek Reservoir inflow	APR-JUL	5.0	7.8	10.0	57	12.5	16.7	17.6
East Canyon Reservoir inflow	APR-JUL	12.3	17.7	22	71	27	35	31
Weber River at Gateway	APR-JUL	215	235	250	70	265	285	355
SF Ogden River nr Huntsville	APR-JUL	19.6	28	35	55	43	55	64
Pineview Reservoir inflow	APR-JUL	39	59	75	56	93	123	133
Wheeler Creek nr Huntsville	APR-JUL	1.8	2.9	3.8	60	4.8	6.5	6.3

WEBER & OGDEN WATERSHEDS in Utah Reservoir Storage (1000 AF) - End of February					WEBER & OGDEN WATERSHEDS in Utah Watershed Snowpack Analysis - March 1, 2007			
Reservoir	Usable Capacity	*** Usable Storage ***			Watershed	Number of Data Sites	This Year as % of	
		This Year	Last Year	Avg			Last Yr	Average
CAUSEY	7.1	3.9	2.6	2.6	OGDEN RIVER	4	56	60
EAST CANYON	49.5	40.4	36.0	35.4	WEBER RIVER	9	67	79
ECHO	73.9	52.2	52.4	51.0	WEBER & OGDEN WATERSHEDS	13	63	72
LOST CREEK	22.5	16.8	15.7	13.9				
PINEVIEW	110.1	61.2	54.7	52.6				
ROCKPORT	60.9	44.3	41.3	33.2				
WILLARD BAY	215.0	81.3	194.2	154.9				

\* 90%, 70%, 50%, 30%, and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table.

The average is computed for the 1971-2000 base period.

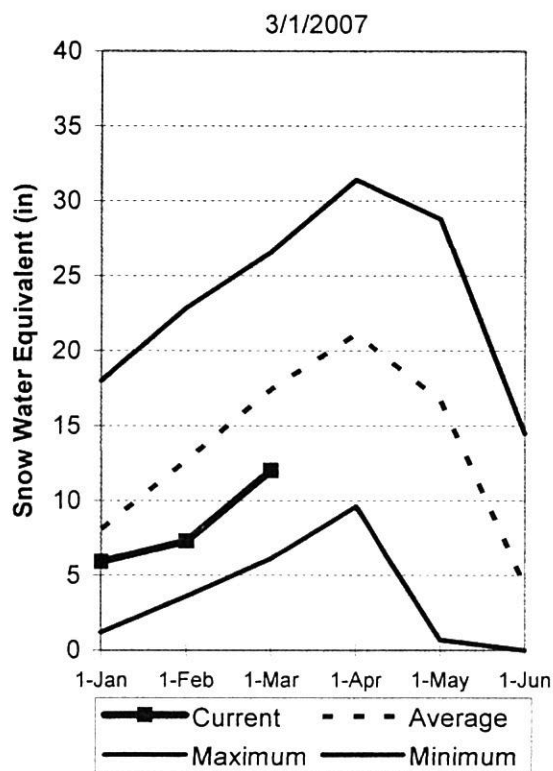
- (1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.  
(2) - The value is natural volume - actual volume may be affected by upstream water management.

# Utah Lake, Jordan River & Tooele Valley Basins

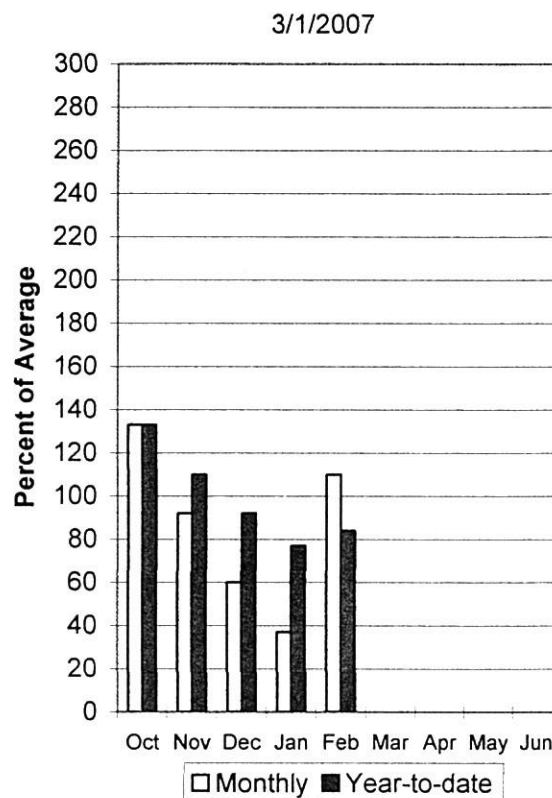
March 1, 2007

Snowpack over these regions are much below average at 69%, which is 61% of last year and up 12% from last month. Individual sites range from 54% to 87% of average. February precipitation was above average at 110%, bringing the seasonal accumulation (Oct-Feb) to 84% of average. Soil moisture levels in runoff producing areas are at 50% of saturation in the upper 2 feet of soil compared to 47% last year. Reservoir storage is at 92% of capacity, 6% higher than last year. Streamflow forecasts range from 52% to 74% of average. The Surface Water Supply Index is at 56%, indicating general water supply conditions are near normal due to good reservoir carryover.

## Provo River Snowpack

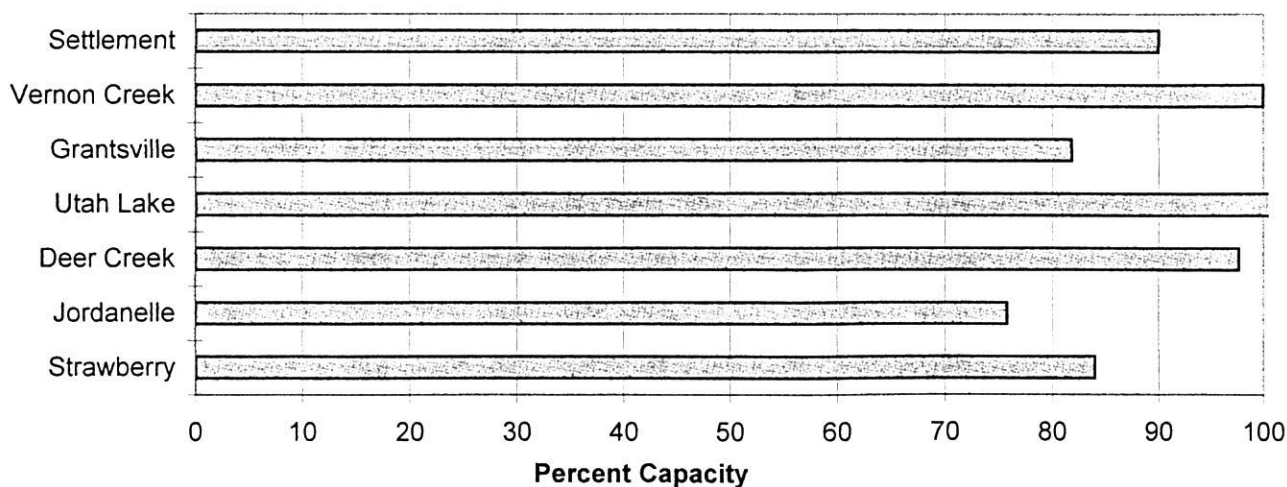


## Provo River Precipitation



## Reservoir Storage

3/1/2007



UTAH LAKE, JORDAN RIVER & TOOELE VALLEY  
Streamflow Forecasts - March 1, 2007

Forecast Point	Forecast Period	<<===== Drier ===== Future Conditions ===== Wetter =====>>						
		90%		50%		30%		30-Yr Avg.
		(1000AF)	(1000AF)	(1000AF)	(% AVG.)	(1000AF)	(1000AF)	
Spanish Fork River nr Castilla	APR-JUL	14.7	31	45	58	62	92	77
Provo River nr Woodland	APR-JUL	46	60	70	68	81	100	103
Provo River nr Hailstone	APR-JUL	46	61	72	66	84	104	109
Deer Creek Resv Inflow	APR-JUL	53	66	75	60	85	101	126
American Fk Abv Upper Powerplant	APR-JUL	11.8	16.4	20	63	24	30	32
Utah Lake inflow	APR-JUL	103	140	169	52	200	250	325
West Canyon Ck Nr Cedar Fort	APR-JUL	0.6	1.1	1.5	63	2.0	2.8	2.4
Little Cottonwood Ck nr SLC	APR-JUL	19.3	24	28	70	32	38	40
Big Cottonwood Ck nr SLC	APR-JUL	17.9	23	26	68	30	36	38
Mill Creek nr SLC	APR-JUL	2.8	4.0	4.9	70	5.9	7.6	7.0
Parley's Creek nr SLC	APR-JUL	4.9	8.2	10.9	65	14.0	19.3	16.7
Dell Fork nr SLC	APR-JUL	1.4	2.7	3.8	56	5.1	7.4	6.8
Emigration Creek nr SLC	APR-JUL	0.7	1.6	2.4	53	3.4	5.1	4.5
City Creek nr SLC	APR-JUL	3.3	4.9	6.1	70	7.5	9.7	8.7
Vernon Creek nr Vernon	APR-JUL	0.3	0.6	0.9	62	1.2	1.8	1.5
Settlement Creek Abv Resv Nr Tooele	APR-JUL	0.5	0.9	1.3	62	1.7	2.4	2.1
South Willow Creek nr Grantsville	APR-JUL	1.4	1.9	2.4	74	2.9	3.7	3.2

UTAH LAKE, JORDAN RIVER & TOOELE VALLEY Reservoir Storage (1000 AF) - End of February					UTAH LAKE, JORDAN RIVER & TOOELE VALLEY Watershed Snowpack Analysis - March 1, 2007			
Reservoir	Usable Capacity	*** Usable Storage ***			Watershed	Number of Data Sites	This Year as % of	
		This Year	Last Year	Avg			Last Yr	Average
DEER CREEK	149.7	146.2	123.7	107.4	PROVO RIVER & UTAH LAKE	7	59	62
GRANTSVILLE	3.3	2.7	2.5	2.2	PROVO RIVER	4	58	64
SETTLEMENT CREEK	1.0	0.9	0.9	0.6	JORDAN RIVER & GREAT SALT	6	60	75
STRAWBERRY-ENLARGED	1105.9	928.5	838.1	637.8	TOOELE VALLEY WATERSHEDS	3	81	71
UTAH LAKE	870.9	931.5	869.6	825.1	UTAH LAKE, JORDAN RIVER &	16	62	69
VERNON CREEK	0.6	0.6	0.5	---				

\* 90%, 70%, 50%, 30%, and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table.

The average is computed for the 1971-2000 base period.

- (1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.  
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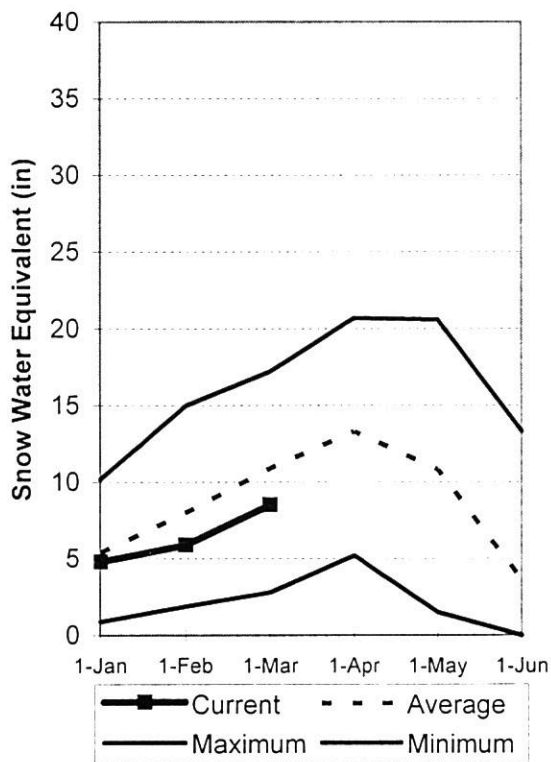
## Uintah Basin and Dagget SCD's

### March 1, 2007

Snowpack across the Uintah Basin and North Slope areas is below average at 78%, which is 77% of last year. The North Slope ranges from 69% to 110% and the South Slope ranges from 64% to 90% of average. Precipitation during February was below average at 87% bringing the seasonal accumulation (Oct-Feb) to 90% of average. Soil moisture values in runoff producing areas are at 41% of saturation in the upper 2 feet of soil compared to 32% last year. Reservoir storage is at 85% of capacity, 7% more than last year. Streamflow forecasts range from 52% to 84% of average. The Surface Water Supply Index for the western area is 79% and for the eastern area it is 45% indicating above normal conditions on the west side and near normal for the eastern area. General water supply conditions range from above to near average from west to east thanks to excellent reservoir carryover.

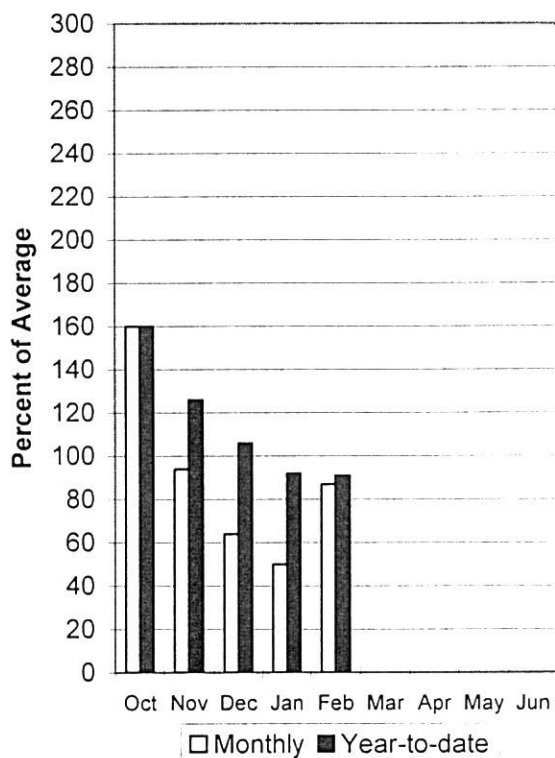
#### Uinta Snowpack

3/1/2007



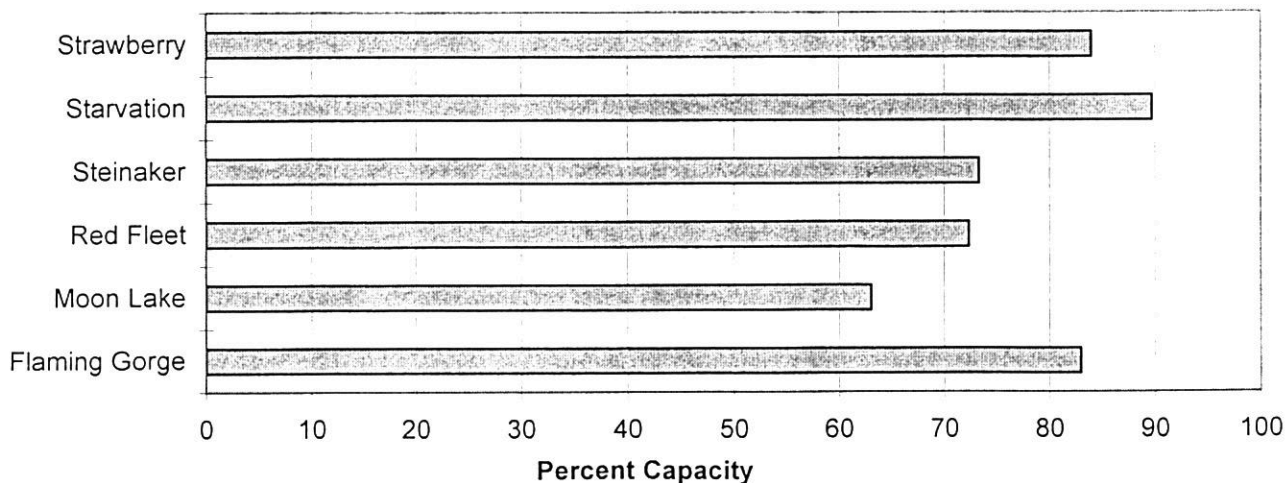
#### Uinta Precipitation

3/1/2007



#### Reservoir Storage

3/1/2007



UINTAH BASIN & DAGGET SCD'S  
Streamflow Forecasts - March 1, 2007

Forecast Point	Forecast Period	<<===== Drier ===== Future Conditions ===== Wetter =====>>						
		Chance Of Exceeding *						30-Yr Avg. (1000AF)
		90% (1000AF)	70% (1000AF)	50% (1000AF)	(% AVG.)	30% (1000AF)	10% (1000AF)	
Blacks Fork nr Robertson	APR-JUL	51	65	76	80	88	106	95
EF of Smiths Fork nr Robertson	APR-JUL	13.4	18.3	22	76	26	33	29
Flaming Gorge Reservoir Inflow (2)	APR-JUL	382	565	710	60	872	1140	1190
Big Brush Ck abv Red Fleet Resv	APR-JUL	10.1	14.3	17.6	84	21	27	21
Ashley Creek nr Vernal	APR-JUL	26	35	42	81	50	62	52
WF Duchesne River nr Hanna (2)	APR-JUL	8.8	12.3	15.0	63	18.0	23	24
Duchesne R nr Tabiona (2)	APR-JUL	40	54	66	63	79	99	105
Upper Stillwater Resv Inflow	APR-JUL	44	53	60	73	67	78	82
Rock Ck nr Mountain Home (2)	APR-JUL	49	60	68	76	76	90	89
Duchesne R abv Knight Diversion (2)	APR-JUL	87	112	130	69	150	181	188
Strawberry R nr Soldier Springs (2)	APR-JUL	13.7	24	33	56	43	61	59
Currant Creek Reservoir Inflow (2)	APR-JUL	4.8	10.2	15.0	60	21	31	25
Strawberry R nr Duchesne (2)	APR-JUL	28	47	63	52	81	113	121
Lake Fork River Moon Lake Inflow	APR-JUL	36	44	50	74	57	67	68
Yellowstone River nr Altonah	APR-JUL	29	38	45	73	53	65	62
Duchesne R at Myton (2)	APR-JUL	56	106	150	58	201	290	260
Whiterocks near Whiterocks	APR-JUL	26	36	44	79	53	67	56
Duchesne R nr Randlett (2)	APR-JUL	65	126	180	56	243	353	324

UINTAH BASIN & DAGGET SCD'S Reservoir Storage (1000 AF) - End of February					UINTAH BASIN & DAGGET SCD'S Watershed Snowpack Analysis - March 1, 2007			
Reservoir	Usable Capacity	*** Usable Storage ***			Watershed	Number of Data Sites	This Year as % of	
		This Year	Last Year	Avg			Last Yr	Average
FLAMING GORGE	3749.0	3110.0	3034.0	2919.0	UPPER GREEN RIVER in UTAH	6	103	86
MOON LAKE	49.5	31.2	30.7	29.8	ASHLEY CREEK	2	137	77
RED FLEET	25.7	18.6	22.3	18.4	BLACK'S FORK RIVER	2	76	82
STEINAKER	33.4	24.5	31.2	22.8	SHEEP CREEK	1	183	110
STARVATION	165.3	148.3	137.8	135.9	DUCHESNE RIVER	11	70	74
STRAWBERRY-ENLARGED	1105.9	928.5	838.1	637.8	LAKE FORK-YELLOWSTONE CRE	4	67	73
					STRAWBERRY RIVER	4	63	70
					UINTAH-WHITEROCKS RIVERS	2	102	88
					UINTAH BASIN & DAGGET SCD	17	77	78

\* 90%, 70%, 50%, 30%, and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table.

The average is computed for the 1971-2000 base period.

- (1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.  
 (2) - The value is natural volume - actual volume may be affected by upstream water management.

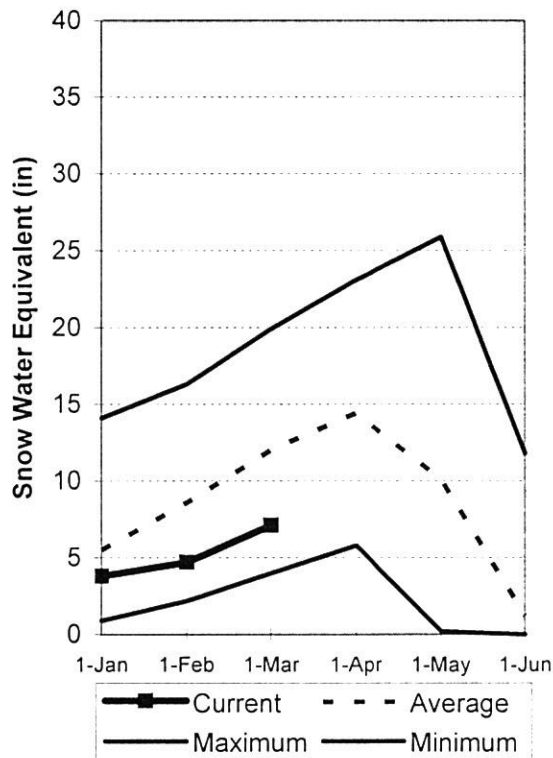
# Carbon, Emery, Wayne, Grand and San Juan Co.

## March 1, 2007

Snowpacks in this region are much below normal at 60% of average, about 72% of last year. Individual sites range from 28% to 100% of average, with the Abajo Mountains the driest in the region. It would require an unprecedented 303% of average March snowpack increase to reach an average April 1<sup>st</sup> value. Precipitation during February was below average at 82%, bringing the seasonal accumulation (Oct-Feb) to 96% of normal. Soil moisture estimates in runoff producing areas are at 48% of saturation in the upper 2 feet of soil compared to 35% last year and up 1% from last month. Forecast streamflows range from 7% to 86% of average. Reservoir storage is at 65% of capacity, same as last year at this time. Surface Water Supply Indices for the area are: Price 36%, San Rafael area 39% and Moab 39%. General runoff and water supply conditions are below normal.

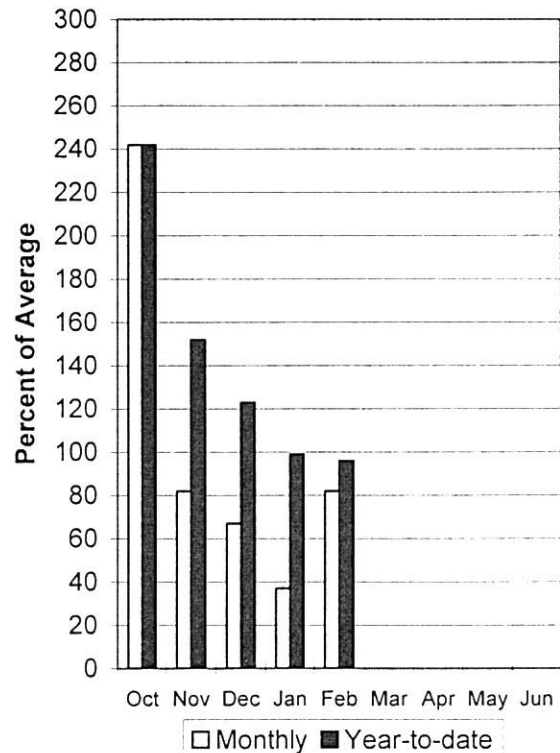
### Southeast Utah Snowpack

3/1/2007



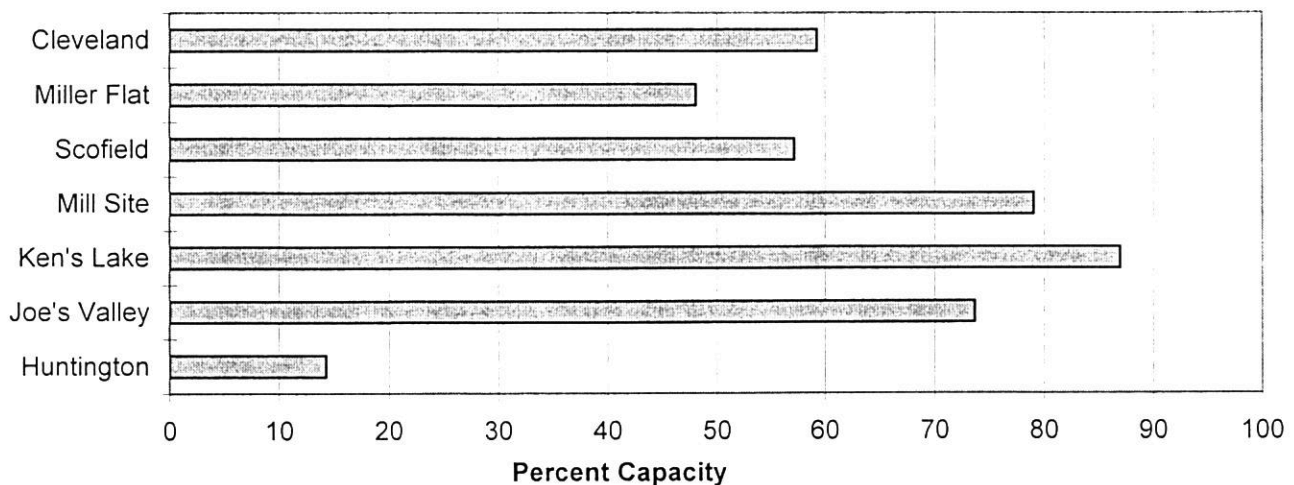
### Southeast Utah Precipitation

3/1/2007



### Reservoir Storage

3/1/2007





CARBON, EMERY, WAYNE, GRAND, & SAN JUAN Co.  
Streamflow Forecasts - March 1, 2007

Forecast Point	Forecast Period	<<===== Drier ===== Future Conditions ===== Wetter =====>>						30-Yr Avg. (1000AF)
		Chance Of Exceeding *						
		90% (1000AF)	70% (1000AF)	50% (1000AF)	(% AVG.)	30% (1000AF)	10% (1000AF)	
Gooseberry Creek nr Scofield	APR-JUL	4.6	6.3	7.6	64	9.0	11.4	11.9
Price River near Scofield Reservoir	APR-JUL	3.5	16.3	25	56	34	46	45
White River blw Tabbyune Creek	APR-JUL	2.9	5.3	7.3	42	9.7	13.8	17.3
Green River at Green River, UT (2)	APR-JUL	760	1500	2000	63	2500	3240	3170
Huntington Ck Inflow to Electric Lk	APR-JUL	3.6	5.8	7.5	48	9.5	12.7	15.7
Huntington Ck nr Huntington	APR-JUL	5.7	17.2	25	51	33	44	49
Joe's Valley Resv Inflow	APR-JUL	18.5	28	35	60	43	57	58
Ferron Ck (Upper Station) nr Ferron	APR-JUL	15.7	21	25	64	29	37	39
Colorado River Near Cisco (2)	APR-JUL	1770	3100	4000	86	4900	6230	4650
Mill Creek at Sheley Tunnel nr Moab	APR-JUL	1.8	2.5	3.1	62	3.7	4.8	5.0
Seven Mile Ck nr Fish Lake	APR-JUL	2.9	4.1	5.1	73	6.2	7.9	7.0
Muddy Creek nr Emery	APR-JUL	7.6	10.7	13.0	65	15.6	19.8	19.9
North Ck ab R.S. nr Monticello	MAR-JUL	0.0	0.0	0.1	7	0.1	0.2	0.8
South Ck ab Lloyd's Res nr Monticell	MAR-JUL	0.1	0.2	0.3	20	0.5	0.8	1.4
Recapture Ck Bl Johnson Ck nr Blandi	MAR-JUL	0.1	0.4	0.8	16	1.4	2.6	5.0
San Juan River near Bluff (2)	APR-JUL	385	715	940	76	1170	1500	1230

CARBON, EMERY, WAYNE, GRAND, & SAN JUAN Co.  
Reservoir Storage (1000 AF) - End of February

CARBON, EMERY, WAYNE, GRAND, & SAN JUAN Co.  
Watershed Snowpack Analysis - March 1, 2007

Reservoir	Usable Capacity	*** Usable Storage ***			Watershed	Number of Data Sites	This Year as % of	
		This Year	Last Year	Avg			Last Yr	Average
HUNTINGTON NORTH	4.2	0.6	3.8	3.4	PRICE RIVER	3	57	55
JOE'S VALLEY	61.6	45.4	45.7	41.5	SAN RAFAEL RIVER	3	60	62
KEN'S LAKE	2.3	2.5	2.2	1.3	MUDDY CREEK	1	47	54
MILL SITE	16.7	13.2	8.8	84.9	FREMONT RIVER	3	110	68
SCOFIELD	65.8	37.6	37.2	34.8	LASAL MOUNTAINS	1	110	75
					BLUE MOUNTAINS	1	176	40
					WILLOW CREEK	1	267	68
					CARBON, EMERY, WAYNE, GRA	13	72	60

\* 90%, 70%, 50%, 30%, and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table.

The average is computed for the 1971-2000 base period.

(1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.

(2) - The value is natural volume - actual volume may be affected by upstream water management.

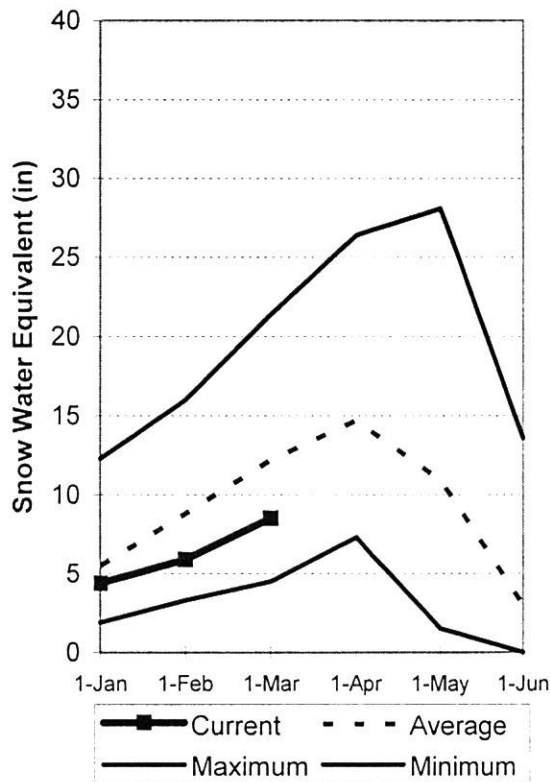
# Sevier and Beaver River Basins

Mar 1, 2007

Snowpacks on the Sevier River Basin are much below normal at 69% of average, about 94% of last year and up 2% relative to last month. Individual sites range from 4% to 93% of average. The Sevier River has an 8% chance at getting back to average snowpack this season. Precipitation during February was below average at 79% of normal, bringing the seasonal accumulation (Oct-Feb) to 92% of average. Soil moisture estimates in runoff producing areas are at 49% of saturation (Sevier) in the upper 2 feet of soil compared to 46% last year. Streamflow forecasts range from 38% to 71% of average. Reservoir storage is at 80% of capacity, 13% less than last year. Surface Water Supply Indices are: Upper Sevier 52%, Lower Sevier 49% and Beaver 40%. Water supply conditions are near average due to reservoir storage but with poor streamflow expected

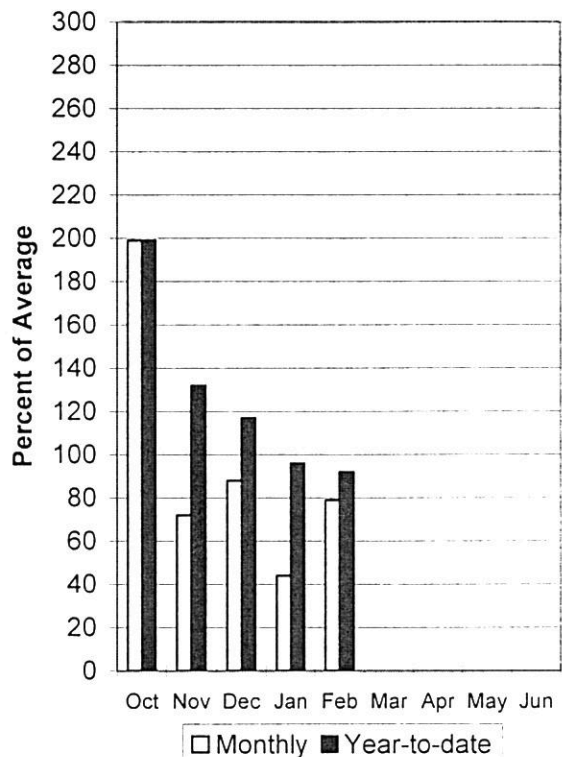
## Sevier River Snowpack

3/1/2007



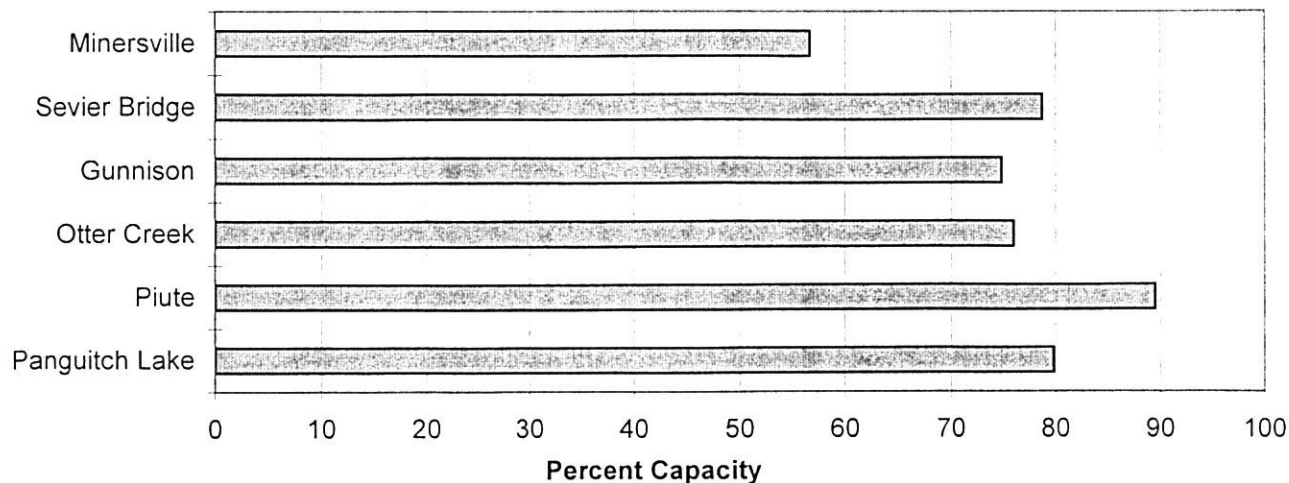
## Sevier River Precipitation

3/1/2007



## Reservoir Storage

3/1/2007



SEVIER & BEAVER RIVER BASINS  
Streamflow Forecasts - March 1, 2007

		<<===== Drier ===== Future Conditions ===== Wetter =====>>						
Forecast Point	Forecast Period	Chance Of Exceeding *						30-Yr Avg. (1000AF)
		90% (1000AF)	70% (1000AF)	50% (1000AF)	(% AVG.)	30% (1000AF)	10% (1000AF)	
Sevier River at Hatch	APR-JUL	17.3	26	33	60	41	54	55
Sevier River nr Kingston	APR-JUL	33	47	57	64	68	87	89
EF Sevier R nr Kingston	APR-JUL	7.9	16.4	24	63	33	49	38
Sevier R blw Piute Dam	APR-JUL	28	57	82	65	112	165	126
Clear Creek Abv Diversions Nr Sevier	APR-JUL	7.0	11.2	14.6	66	18.4	25	22
Salina Creek at Salina	APR-JUL	2.0	6.5	11.0	56	16.6	27	19.7
Manti Ck Blw Dugway Ck Nr Manti	APR-JUL	7.8	10.7	13.0	71	15.5	19.6	18.3
Sevier R nr Gunnison	APR-JUL	107	147	178	64	210	265	280
Chicken Creek nr Levan	APR-JUL	0.6	1.6	2.6	58	3.8	6.0	4.5
Oak Creek nr Oak City	APR-JUL	0.3	0.6	0.9	54	1.2	1.8	1.7
Beaver River nr Beaver	APR-JUL	8.8	13.3	17.0	63	21	28	27
Minersville Reservoir inflow	APR-JUL	1.2	3.8	6.3	38	9.5	15.3	16.6

SEVIER & BEAVER RIVER BASINS Reservoir Storage (1000 AF) - End of February					SEVIER & BEAVER RIVER BASINS Watershed Snowpack Analysis - March 1, 2007			
Reservoir	Usable Capacity	*** Usable Storage ***			Watershed	Number of Data Sites	This Year as % of	
		This Year	Last Year	Avg			Last Yr	Average
GUNNISON	20.3	14.0	18.0	14.6	UPPER SEVIER RIVER (south	8	111	65
MINERSVILLE (RkyFd)	23.3	13.2	21.1	16.2	EAST FORK SEVIER RIVER	3	109	69
OTTER CREEK	52.5	39.9	49.0	40.0	SOUTH FORK SEVIER RIVER	5	113	63
PIUTE	71.8	64.3	65.9	53.3	LOWER SEVIER RIVER (inclu	6	85	75
SEVIER BRIDGE	236.0	185.5	222.3	175.6	BEAVER RIVER	2	87	66
PANGUITCH LAKE	22.3	17.8	18.5	146.8	SEVIER & BEAVER RIVER BAS	16	95	69

\* 90%, 70%, 50%, 30%, and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table.

The average is computed for the 1971-2000 base period.

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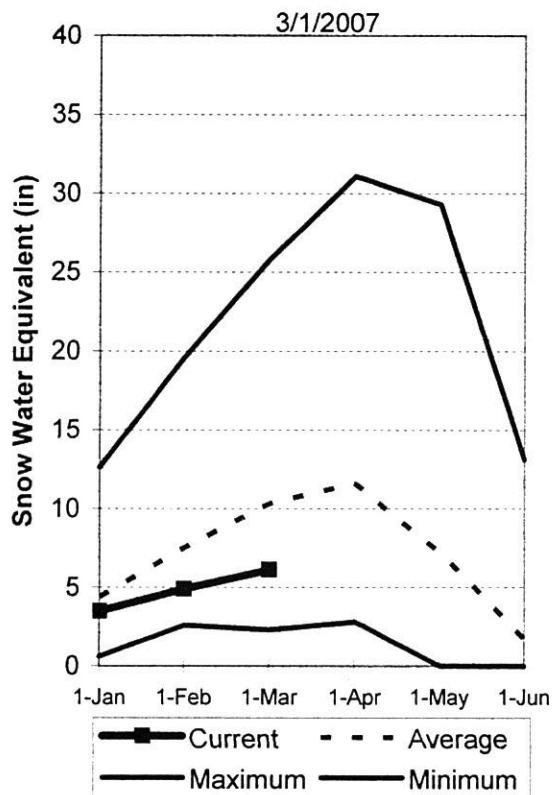


# E. Garfield, Kane, Washington, & Iron Co.

March 1, 2007

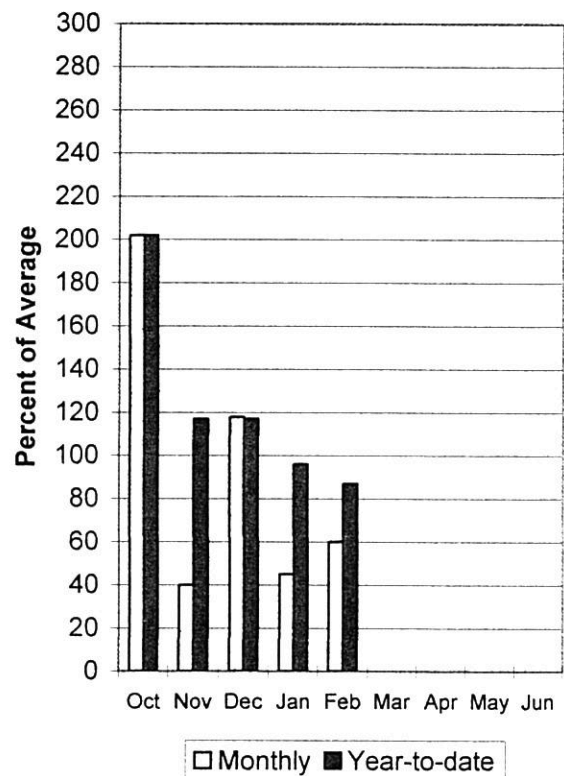
Snowpacks in this region are much below normal at 59% of average, about 141% of last year and down 6% relative to last month. These watersheds have a 14% chance of reaching average snowpack this season. Individual sites range from 12% to 100% of average. Precipitation in the month of February was much below average at 60%, bringing the seasonal accumulation (Oct-Feb) to 87% of average. Soil moisture estimates in runoff producing areas are at 45% of saturation in the upper 2 feet of soil compared to 31% last year. Forecast streamflows range from 46% to 55% of average. Reservoir storage is at 83% of capacity, 8% less than last year. The Surface Water Supply Index is at 33%, indicating below average water supply conditions.

### Southwest Utah Snowpack



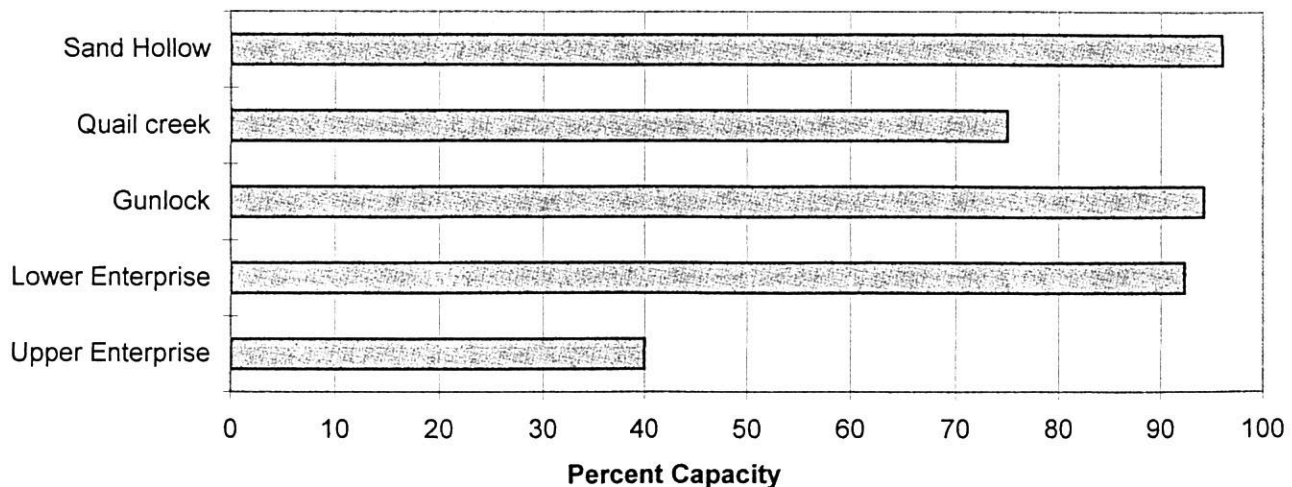
### Southwest Utah Precipitation

3/1/2007



### Reservoir Storage

3/1/2007



E. GARFIELD, KANE, WASHINGTON, & IRON Co.  
Streamflow Forecasts - March 1, 2007

Forecast Point	Forecast Period	<<----- Drier -----		Future Conditions -----		----- Wetter ----->>		30-Yr Avg. (1000AF)
		90%	70%	50%		30%	10%	
		(1000AF)	(1000AF)	(1000AF)	(% AVG.)	(1000AF)	(1000AF)	
Lake Powell Inflow (2)	APR-JUL	2650	4410	5600	71	6790	8550	7930
Virgin River at Virgin	APR-JUL	17.3	24	33	52	43	60	64
Virgin River near Hurricane	APR-JUL	17.3	22	32	46	44	65	69
Santa Clara River nr Pine Valley	APR-JUL	1.0	2.1	3.0	55	4.1	6.0	5.5
Coal Creek nr Cedar City	APR-JUL	6.3	9.8	12.7	66	15.9	21	19.3

E. GARFIELD, KANE, WASHINGTON, & IRON Co.  
Reservoir Storage (1000 AF) - End of February

E. GARFIELD, KANE, WASHINGTON, & IRON Co.  
Watershed Snowpack Analysis - March 1, 2007

Reservoir	Usable Capacity	*** Usable Storage ***			Watershed	Number of Data Sites	This Year as % of	
		This Year	Last Year	Avg			Last Yr	Average
GUNLOCK	10.4	9.8	10.4	4.9	VIRGIN RIVER	5	133	58
LAKE POWELL	24322.0	11560.0	10871.0	---	PAROWAN	2	106	74
QUAIL CREEK	40.0	30.0	37.3	29.7	ENTERPRISE TO NEW HARMONY	2	1280	48
UPPER ENTERPRISE	10.0	4.0	9.0	---	COAL CREEK	2	109	71
LOWER ENTERPRISE	2.6	2.4	0.0	90.0	ESCALANTE RIVER	2	138	73
					E. GARFIELD, KANE, WASHIN	9	138	59

\* 90%, 70%, 50%, 30%, and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table.

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- (1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.  
 (2) - The value is natural volume - actual volume may be affected by upstream water management.

<b>UTAH SURFACE Snow Surveys Basin or Region 1-Mar-07</b>	<b>WATER NRCS SWSI/%</b>	<b>SUPPLY USDA Percentile</b>	<b>INDEX  Years with Similar SWSI</b>
Bear River	-2.43	21%	95,02,06,90
Ogden River	-2.03	26%	04,02,00,91
Weber River	-1.93	27%	91,87,00,89
Provo	0.50	56%	81,70,68,53
West Uintah Basin	2.43	79%	01,06,05,97
East Uintah Basin	-0.43	45%	80,82,96,00
Price River	-1.17	36%	62,93,94,72
San Rafael	-0.93	39%	95,76,88,99
Moab	-0.89	39%	99,96,82,91
Upper Sevier River	0.16	52%	2001,74,94,62
Lower Sevier River	-0.10	49%	89,71,96,74
Beaver River	-0.87	40%	94,89,75,62
Virgin River	-1.39	33%	04,96,85,97

Snow Surveys  
245 N Jimmy Doolittle Rd  
Salt Lake City, UT  
(801) 524-5213

SWSI Scale: -4 to 4  
Percentile: 0 - 100%

## What is a Surface Water Supply Index?

The Surface Water Supply Index (SWSI) is a predictive indicator of total surface water availability within a watershed for the spring and summer water use seasons. The index is calculated by combining pre-runoff reservoir storage (carryover) with forecasts of spring and summer streamflow which are based on current snowpack and other hydrologic variables. SWSI values are scaled from +4.1 (abundant supply) to -4.1 (extremely dry) with a value of zero (0) indicating median water supply as compared to historical analysis. SWSI's are calculated in this fashion to be consistent with other hydroclimatic indicators such as the Palmer Drought Index and the Precipitation index.

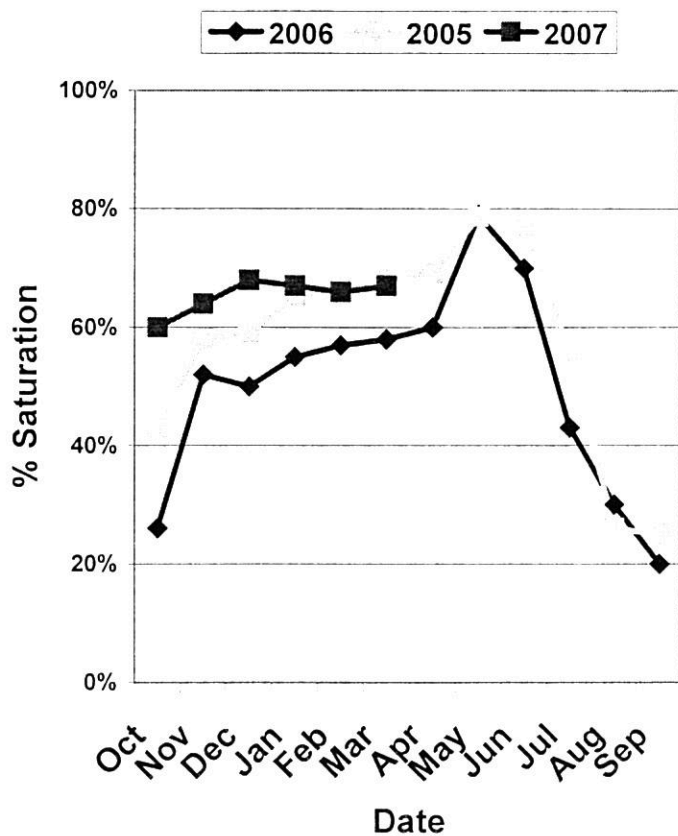
Utah Snow Surveys has also chosen to display the SWSI as a PERCENT CHANCE OF NON-EXCEEDANCE. While this is a very cumbersome name, it has the simplest application. It can be best thought of as a simple scale of 1 to 99 with 1 being the drought of record (driest possible conditions) and 99 being the flood of record (wettest possible conditions) and a value of 50 representing average conditions. This rating scale is a percentile rating as well, for example a SWSI of 75% means that this years water supply is greater than 75% of all historical events and that only 25% of the time has it been exceeded. Conversely a SWSI of 10% means that 90% of historical events have been greater than this one and that only 10% have had less total water supply. This scale is far more intuitive for most people and is totally comparable between basins: a SWSI of 50% means the same relative ranking on watershed A as it does on watershed B, which may not be strictly true of the +4 to -4 scale.

For more information on the SWSI go to: [www.ut.nrcs.usda.gov/snow/](http://www.ut.nrcs.usda.gov/snow/) on the water supply page. The entire period of historical record for reservoir storage and streamflow is available.

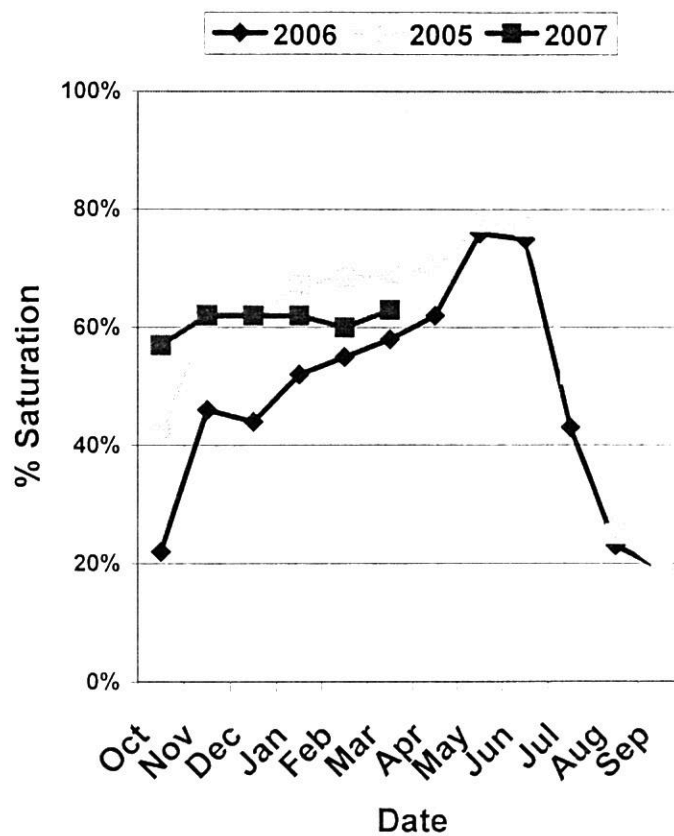


# Watershed Soil Moisture Charts for Utah Water Supply

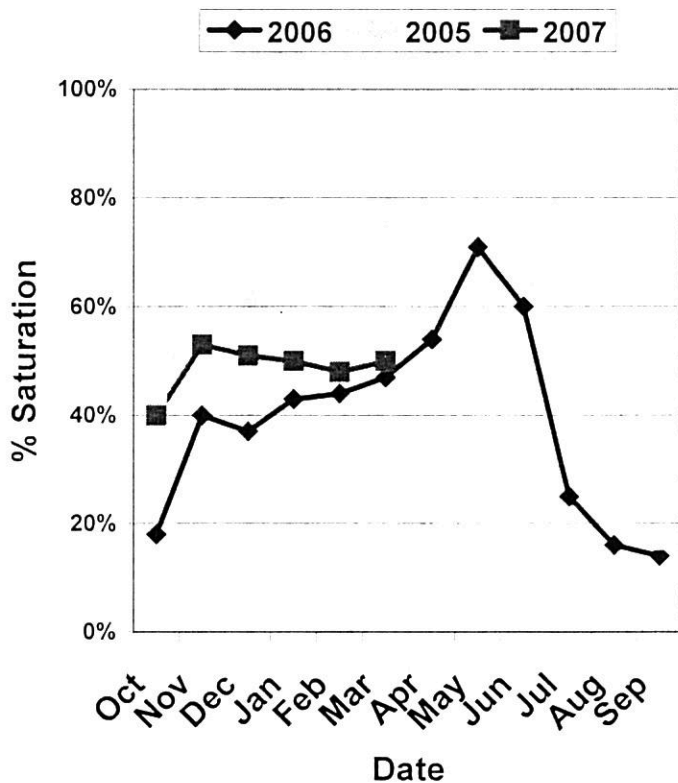
## Bear River Soil Moisture



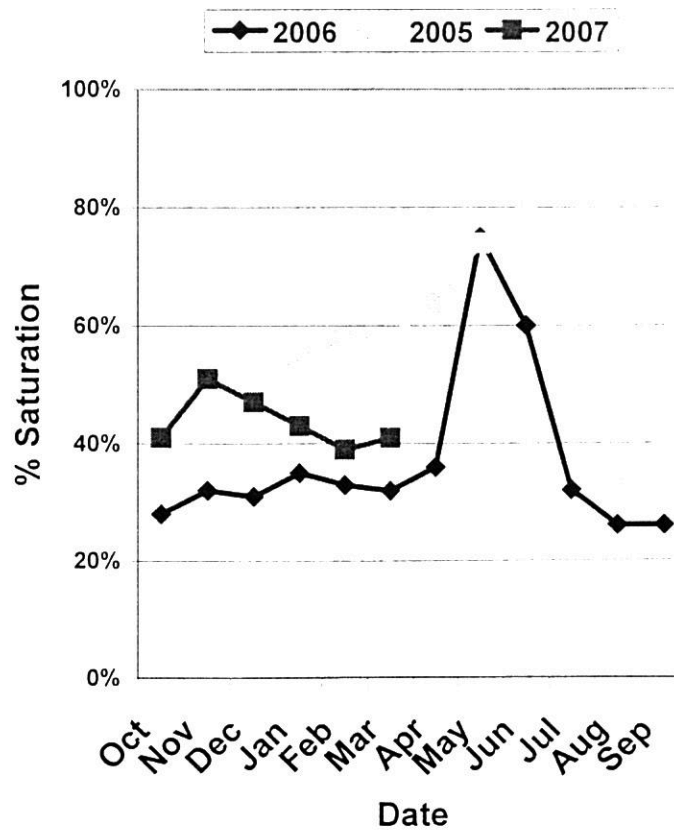
## Weber River Soil Moisture



## Jordan/Provo River Soil Moisture

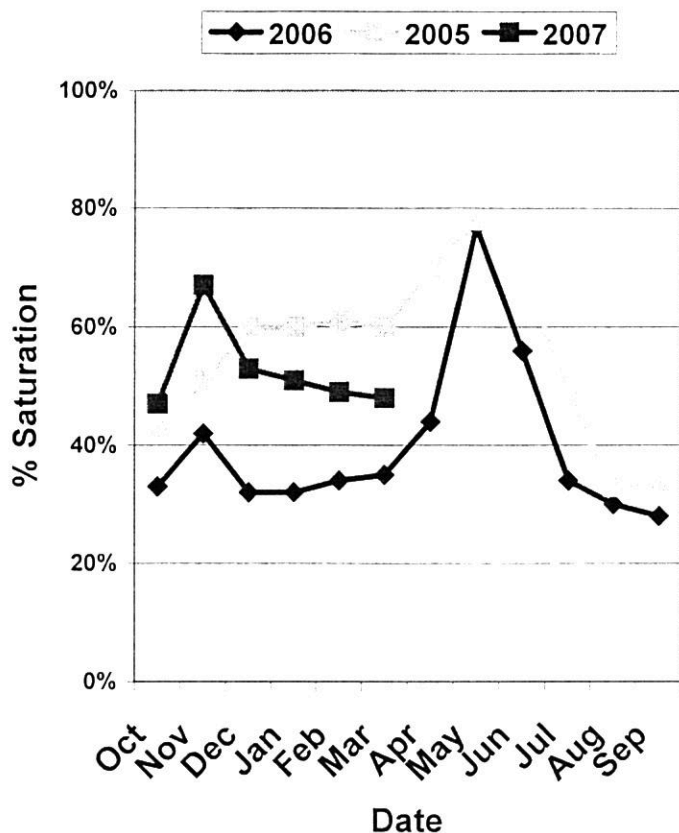


## Uintah Basin Soil Moisture

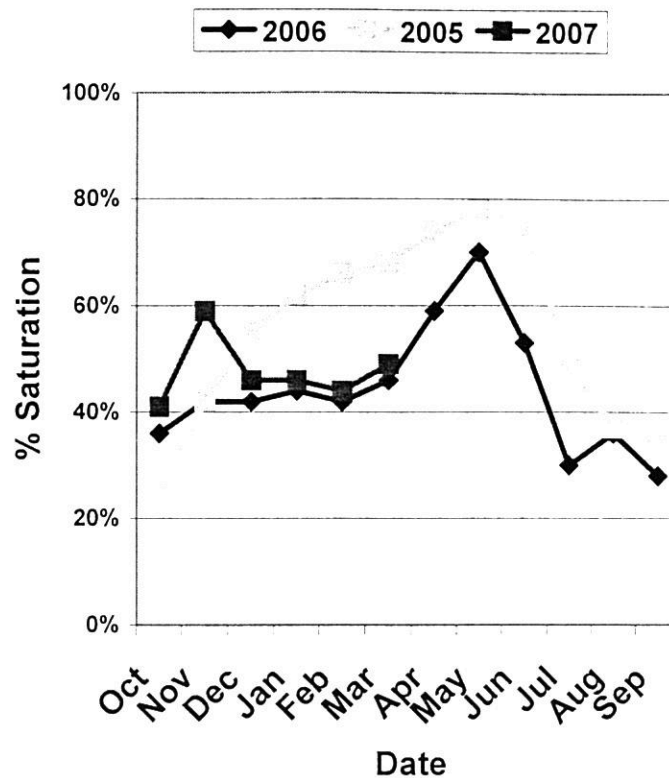


# Watershed Soil Moisture Charts for Utah Water Supply

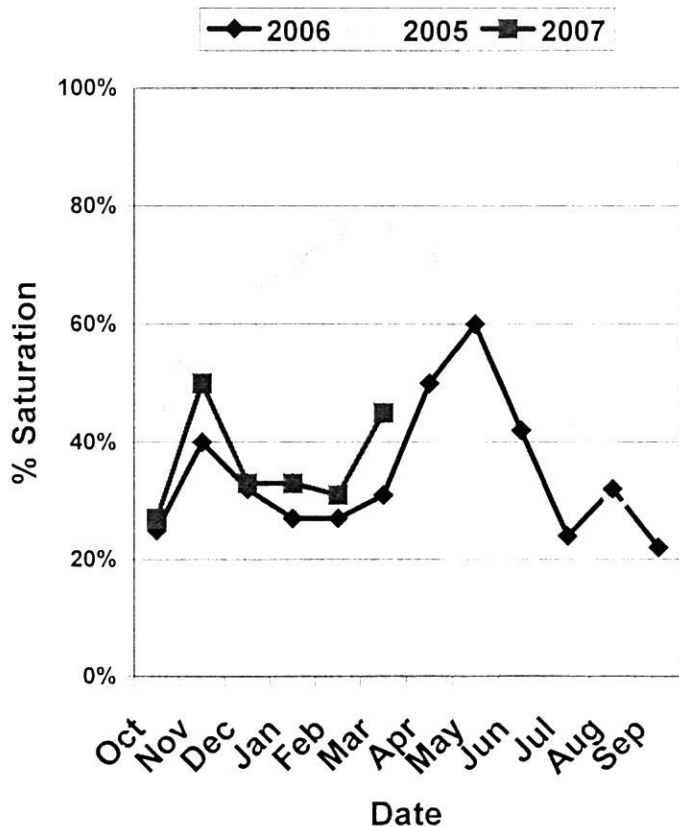
## South East Utah Soil Moisture



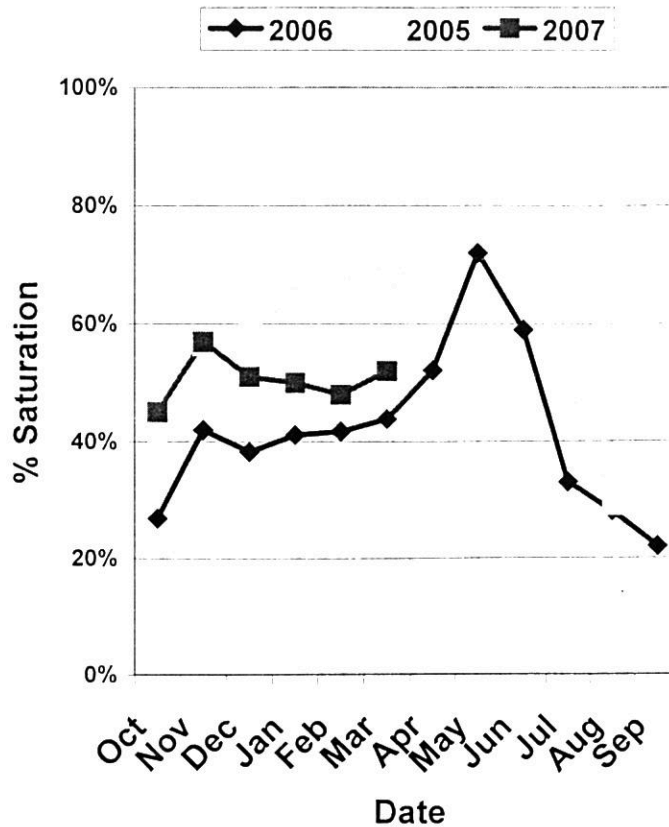
## Sevier/Beaver River Soil Moisture



## Southwest Utah Soil Moisture



## Statewide Soil Moisture



## S N O W   C O U R S E   D A T A

MARCH 2007

SNOW COURSE	ELEV.	DATE	SNOW DEPTH	WATER CONTENT	LAST YEAR	AVERAGE 71-00
AGUA CANYON SNOTEL	8900	3/01	24	5.4	4.8	7.3
ALTA CENTRAL	8800	3/01	90	22.3	45.3	31.1
BEAVER DAMS SNOTEL	8000	3/01	27	6.2	9.4	10.2
BEAVER DIVIDE SNOTEL	8280	3/01	36	6.3	12.4	10.2
BEN LOMOND PK SNOTEL	8000	3/01	67	19.6	37.7	34.3
BEN LOMOND TR SNOTEL	6000	3/01	34	9.1	21.1	19.0
BEVAN'S CABIN	6450	2/26	25	6.8	8.6	9.2
BIG FLAT SNOTEL	10290	3/01	52	10.6	11.8	15.0
BIRCH CROSSING	8100	2/26	21	4.9	4.7	6.7
BLACK FLAT-U.M. CK S	9400	3/01	25	5.0	7.7	8.5
BLACK'S FORK GS-EF	9340	2/24	25	5.4	9.2	7.8
BLACK'S FORK JUNCTN	8930	2/24	29	5.7	9.5	7.7
BOX CREEK SNOTEL	9800	3/01	37	8.6	9.4	11.0
BRIAN HEAD	10000	2/26	45	11.3	11.1	16.5
BRIGHTON SNOTEL	8750	3/01	61	14.9	25.2	20.4
BRIGHTON CABIN	8700	2/28	67	16.0	27.1	23.1
BROWN DUCK SNOTEL	10600	3/01	62	11.7	17.2	15.0
BRYCE CANYON	8000	2/27	1	2	2.0	4.9
BUCK FLAT SNOTEL	9800	3/01	43	9.7	17.3	15.3
BUCK PASTURE	9700	2/24	50	10.8	18.4	14.0
BUCKBOARD FLAT	9000	2/28	38	6.8	3.5	11.0
BUG LAKE SNOTEL	7950	3/01	53	12.1	21.5	17.1
BURT'S-MILLER RANCH	7900	2/24	22	5.3	4.7	4.7
CAMP JACKSON SNOTEL	8600	3/01	28	5.1	2.9	12.9
CASCADE MOUNTAIN SNO	7770	3/01	50	11.3	16.1	-
CASTLE VALLEY SNOTEL	9580	3/01	41	7.9	8.3	11.8
CHALK CK #1 SNOTEL	9100	3/01	72	17.8	22.8	19.9
CHALK CK #2 SNOTEL	8200	3/01	51	12.1	12.5	12.9
CHALK CREEK #3	7500	2/24	25	6.3	6.5	6.8
CHEPETA SNOTEL	10300	3/01	52	10.3	10.2	11.4
CLAYTON SPRINGS SNTL	10000	3/01	38	7.7	6.5	-
CLEAR CK RIDG #1 SNT	9200	3/01	47	9.1	17.8	16.7
CLEAR CK RIDG #2 SNT	8000	3/01	47	8.6	12.0	12.3
CORRAL	8200	2/25	21	4.7	3.3	-
CURRANT CREEK SNOTEL	8000	3/01	26	6.5	10.8	9.6
DANIELS-STRAWBERRY S	8000	3/01	43	10.5	19.4	15.1
DILL'S CAMP SNOTEL	9200	3/01	35	6.6	14.0	12.3
DONKEY RESERVOIR SNO	9800	3/01	34	6.6	3.6	6.6
DRY BREAD POND SNTL	8350	3/01	54	12.2	19.9	19.0
DRY FORK SNOTEL	7160	3/01	50	11.4	12.2	14.5
EAST WILLOW CREEK SN	8250	3/01	26	4.8	1.8	7.1
FARMINGTON U. SNOTEL	8000	3/01	83	20.5	36.6	27.3
FARMINGTON L. SNOTEL	6780	3/01	53	14.2	19.8	-
FARNSWORTH LK SNOTEL	9600	3/01	62	13.7	12.4	14.8
FISH LAKE	8700	2/25	10	2.1	5.6	7.5
FIVE POINTS LAKE SNO	10920	3/01	49	10.7	15.3	13.8
G.B.R.C. HEADQUARTER	8700	2/26	42	9.3	14.3	13.8
G.B.R.C. MEADOWS	10000	2/26	54	12.5	22.8	19.0
GARDEN CITY SUMMIT	7600	2/24	32	7.5	16.3	13.5
GARDNER PEAK SNOTEL	8350	3/01	31	6.6	4.6	-
GEORGE CREEK	8840	2/27	51	13.0	20.6	17.3
GOOSEBERRY R.S.	8400	2/25	33	7.1	9.3	9.9
GOOSEBERRY R.S. SNTL	7900	3/01	28	7.4	7.0	7.9
GUTZ PEAK SNOTEL	6820	3/01	18	3.8	.0	-
HARDSCRABBLE SNOTEL	7250	3/01	52	12.6	22.3	14.3
HARRIS FLAT SNOTEL	7700	3/01	4	.8	.0	6.9
HAYDEN FORK SNOTEL	9100	3/01	45	10.2	17.6	13.2
HENRY'S FORK	10000	2/24	43	9.0	12.0	10.5
HEWINTA SNOTEL	9500	3/01	37	7.5	10.3	9.1
HICKERSON PARK SNTL	9100	3/01	29	6.4	3.5	5.8
HIDDEN SPRINGS	5500	3/01	14	2.4	6.0	5.9
HOBBLE CREEK SUMMIT	7420	2/24	32	7.9	15.8	13.1
HOLE-IN-ROCK SNOTEL	9150	3/01	33	6.2	5.9	5.7
HORSE RIDGE SNOTEL	8260	3/01	57	13.6	24.4	20.2
HUNTINGTON-HORSESHOE	9800	2/26	39	8.7	21.1	19.4
INDIAN CANYON SNOTEL	9100	3/01	35	8.1	7.8	9.6
JOHNSON VALLEY	8850	2/25	12	2.6	5.7	6.4
JONES CORRAL G.S.	9720	2/25	37	8.1	4.9	-



SNOW COURSE	ELEV.	DATE	SNOW DEPTH	WATER CONTENT	LAST YEAR	AVERAGE 71-00
KILFOIL CREEK	7300	2/24	30	6.5	15.3	12.4
KILLYON CANYON	6300	2/27	24	4.1	10.6	8.7
KIMBERLY MINE SNOTEL	9300	3/01	49	11.5	10.0	13.3
KING'S CABIN SNOTEL	8730	3/01	33	6.3	4.7	9.4
KLONDIKE NARROWS	7400	2/24	37	10.1	22.7	16.8
KOLOB SNOTEL	9250	3/01	54	11.9	9.4	17.8
LAKEFORK #1 SNOTEL	10100	3/01	40	7.5	8.7	10.5
LAKEFORK BASIN SNTL	10900	3/01	57	10.8	19.3	16.6
LAKEFORK MOUNTAIN #3	8400	2/24	22	5.5	4.1	6.1
LAMBS CANYON	7400	2/28	53	11.5	17.5	14.5
LASAL MOUNTAIN LOWER	8800	2/28	27	3.5	4.4	8.1
LASAL MOUNTAIN SNTL	9850	3/01	36	8.0	7.3	10.7
LIGHTNING RIDGE SNTL	8220	3/01	48	11.7	18.3	-
LILY LAKE SNOTEL	9050	3/01	49	10.2	12.1	10.8
LITTLE BEAR LOWER	6000	2/24	24	6.3	11.7	10.2
LITTLE BEAR SNOTEL	6550	3/01	29	7.8	11.8	12.8
LITTLE GRASSY SNOTEL	6100	3/01	9	1.2	.0	5.8
LONG FLAT SNOTEL	8000	3/01	21	5.2	.5	7.4
LONG VALLEY JCT. SNT	7500	3/01	4	.7	.0	5.8
LOOKOUT PEAK SNOTEL	8200	3/01	73	17.4	30.1	20.1
LOST CREEK RESERVOIR	6130	2/24	6	1.9	8.5	5.9
LOUIS MEADOW SNOTEL	6700	3/01	51	14.6	21.1	-
MAMMOTH-COTTONWD SNT	8800	3/01	43	8.8	17.4	17.6
MERCHANT VALLEY SNTL	8750	3/01	37	6.8	8.3	11.4
MIDDLE CANYON	7000	2/26	32	8.3	13.4	12.2
MIDWAY VALLEY SNOTEL	9800	3/01	62	15.1	13.5	19.4
MILL CREEK	6950	2/28	56	11.9	18.7	16.6
MILL-D NORTH SNOTEL	8960	3/01	69	14.3	27.1	21.0
MILL-D SOUTH FORK	7400	2/28	53	11.5	19.8	16.9
MINING FORK SNOTEL	8000	3/01	49	12.3	17.0	14.9
MONTE CRISTO SNOTEL	8960	3/01	70	17.3	27.3	24.7
MOSBY MTN. SNOTEL	9500	3/01	45	8.0	7.7	9.3
MT. BALDY R.S.	9500	2/26	56	13.2	21.8	19.9
MUD CREEK #2	8600	2/24	36	7.3	14.2	12.0
OAK CREEK	7760	2/26	34	8.5	8.2	10.0
PANGUITCH LAKE R.S.	8200	2/26	7	1.6	2.8	4.0
PARLEY'S CANYON SNTL	7500	3/01	56	12.2	16.4	15.3
PARRISH CREEK SNOTEL	7740	3/01	69	17.1	23.0	-
PAYSON R.S. SNOTEL	8050	3/01	39	9.5	14.4	17.2
PICKLE KEG SNOTEL	9600	3/01	49	10.7	15.5	14.1
PINE CREEK SNOTEL	8800	3/01	55	15.9	12.5	19.3
RED PINE RIDGE SNTL	9200	3/01	40	9.2	14.9	14.2
REDDEN MINE LOWER	8500	2/24	42	10.8	16.3	15.1
REES'S FLAT	7300	2/26	39	8.3	10.5	11.2
ROCK CREEK SNOTEL	7900	3/01	31	5.8	9.4	7.9
ROCKY BN-SETTLEMT SN	8900	3/01	54	14.0	16.6	21.2
SEELEY CREEK SNOTEL	10000	3/01	29	6.9	10.6	12.3
SMITH MOREHOUSE SNTL	7600	3/01	47	11.0	12.8	12.4
SNOWBIRD SNOTEL	9700	3/01	85	19.7	43.1	28.3
SPIRIT LAKE	10300	2/24	41	9.5	7.0	10.5
SQUAW SPRINGS	9300	2/25	17	3.7	6.6	6.6
STEEL CREEK PARK SNO	10100	3/01	45	10.3	13.2	12.7
STILLWATER CAMP	8550	2/24	35	7.0	9.6	8.8
STRAWBERRY DIVIDE SN	8400	3/01	48	10.5	18.2	16.3
SUSC RANCH	8200	2/26	14	4.6	1.5	8.1
TALL POLES	8800	2/26	37	8.6	8.8	12.1
TEMPLE FORK SNOTEL	7410	3/01	52	10.2	19.7	-
THAYNES CANYON SNTL	9200	3/01	63	14.7	23.1	19.3
THISTLE FLAT	8500	2/26	46	9.8	14.8	-
TIMBERLINE	9100	2/25	28	6.8	5.2	-
TIMPANOGOS DIVIDE SN	8140	3/01	58	12.5	20.2	20.4
TONY GROVE LK SNOTEL	8400	3/01	85	22.4	46.9	30.0
TONY GROVE R.S.	6250	2/24	24	6.8	15.0	11.3
TRIAL LAKE	9960	2/24	54	12.0	26.5	20.3
TRIAL LAKE SNOTEL	9960	3/01	58	13.1	24.7	20.6
TROUT CREEK SNOTEL	9400	3/01	38	7.1	5.1	8.1
UPPER JOES VALLEY	8900	2/25	21	4.5	10.6	9.3
VERNON CREEK SNOTEL	7500	3/01	32	6.6	6.9	10.1
VIPONT	7670	2/25	38	10.0	19.8	12.2
WEBSTER FLAT SNOTEL	9200	3/01	37	8.3	8.0	13.5
WHITE RIVER #1 SNTL	8550	3/01	36	7.5	9.7	11.6
WHITE RIVER #3	7400	2/24	14	4.0	9.7	7.8
WIDTSOE #3 SNOTEL	9500	3/01	33	5.3	4.1	9.7
WRIGLEY CREEK	9000	2/25	25	5.2	9.5	9.6
YANKEE RESERVOIR	8700	2/27	28	5.5	6.2	8.4



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TEMPERATURE AND SOIL MOISTURE, RESERVOIR, SURFACE WATER SUPPLY INDEX, AND  
OTHER DATA BY VISITING OUR WEB SITE @:

<http://www.ut.nrcs.usda.gov/snow/>

Snow Survey, NRCS, USDA  
245 North Jimmy Doolittle Road  
Salt Lake City, UT 84116  
(801) 524-5213



# **Utah Water Supply Outlook Report**

Natural Resources Conservation Service  
Salt Lake City, UT





# Utah Water Supply Outlook Report

April, 2007



**Johnson Valley Snow Course April, 2007. New record low April 1 Snowpack for the Sevier and southeastern Utah Watersheds. Photo by Tim Bardsley, NRCS, USDA .**



# Water Supply Outlook Reports

## and Federal - State - Private Cooperative Snow Surveys

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### *How forecasts are made*

Most of the annual streamflow in the western United States originates as snowfall that has accumulated in the mountains during the winter and early spring. As the snowpack accumulates, hydrologists estimate the runoff that will occur when it melts. Measurements of snow water equivalent at selected manual snowcourses and automated SNOTEL sites, along with precipitation, antecedent streamflow, and indices of the El Niño / Southern Oscillation are used in computerized statistical and simulation models to prepare runoff forecasts. These forecasts are coordinated between hydrologists in the Natural Resources Conservation Service and the National Weather Service. Unless otherwise specified, all forecasts are for flows that would occur naturally without any upstream influences.

Forecasts of any kind, of course, are not perfect. Streamflow forecast uncertainty arises from three primary sources: (1) uncertain knowledge of future weather conditions, (2) uncertainty in the forecasting procedure, and (3) errors in the data. The forecast, therefore, must be interpreted not as a single value but rather as a range of values with specific probabilities of occurrence. The middle of the range is expressed by the 50% exceedance probability forecast, for which there is a 50% chance that the actual flow will be above, and a 50% chance that the actual flow will be below, this value. To describe the expected range around this 50% value, four other forecasts are provided, two smaller values (90% and 70% exceedance probability) and two larger values (30%, and 10% exceedance probability). For example, there is a 90% chance that the actual flow will be more than the 90% exceedance probability forecast. The others can be interpreted similarly.

The wider the spread among these values, the more uncertain the forecast. As the season progresses, forecasts become more accurate, primarily because a greater portion of the future weather conditions become known; this is reflected by a narrowing of the range around the 50% exceedance probability forecast. Users should take this uncertainty into consideration when making operational decisions by selecting forecasts corresponding to the level of risk they are willing to assume about the amount of water to be expected. If users anticipate receiving a lesser supply of water, or if they wish to increase their chances of having an adequate supply of water for their operations, they may want to base their decisions on the 90% or 70% exceedance probability forecasts, or something in between. On the other hand, if users are concerned about receiving too much water (for example, threat of flooding), they may want to base their decisions on the 30% or 10% exceedance probability forecasts, or something in between. Regardless of the forecast value users choose for operations, they should be prepared to deal with either more or less water. (Users should remember that even if the 90% exceedance probability forecast is used, there is still a 10% chance of receiving less than this amount.) By using the exceedance probability information, users can easily determine the chances of receiving more or less water.

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# STATE OF UTAH GENERAL OUTLOOK

April 1, 2007

## SUMMARY

March reminds us that when you think it can't possibly get worse, it certainly can. This March was a complete disaster for snowpacks. At a time when Utah normally gets a substantial amount of snow (about 17% of our total snowpack typically accumulates in March), snowpacks were in full retreat, heading the wrong direction. Not in a quiet, organized fashion but in full out panic, headlong at full speed without the cinch tightened and with stirrups flapping. So, just how bad was it? The March snowpack accumulation in Bear River was -29% of average, the worst April 1 since 2001. The Weber River March accumulation was -28% of average, the worst April 1 since 1992. The March accumulation in the Provo was -41% of average, making it the worst April 1 since 1977 and there are still many who remember how bad 1977 was. The Uinta's March accumulation was -38% of average, also the worst April 1 since 1977. Both Southeast Utah and the Sevier River have a new record low April 1 snowpack, with percent of average March accumulation at -79% and -76%, respectively. Southwest Utah March accumulation was -138%, the worst snowpack since 2002. Statewide, the March accumulation was -55% of average and the worst state total since 1977. Is this the worst March ever in terms of snowpack accumulation? The answer is no, there have been a couple that were worse, but this year we really haven't had any good accumulation months for the entire season. This leaves us in the current position of having snowpacks that range from 37% of average in southwest Utah to 57% of average on the Uintas. Most areas have between 40% and 55% of average snowpacks. Utah needed a monster March snow accumulation and what we got was one of the lowest on record. Soil moisture, as one would expect from all that melting snow, increased rapidly this past month: Bear - 74%, Weber - 72%, Provo - 65%, Uintah Basin - 61%, southeast Utah - 73%, Sevier - 69%, southwest Utah - 66%, and statewide - 69% of saturation. These values are a little higher than last year. In general, most areas of the state have excellent reservoir carryover. General water supply conditions range from much below to near average. Streamflow forecasts range from 13% to 68% of average. Surface Water Supply Indices range from 12% on the Weber River to 67% on the west side of the Uintah Basin.

## SNOWPACK

April first snowpacks as measured by the NRCS SNOTEL are as follows: Bear - 56%, Weber - 54%, Provo - 50%, Uintahs - 57%, southeast Utah - 36%, Sevier - 45%, southwest Utah - 37% and the statewide figure is 50% of average. Snowpacks are isothermal at most locations with rapid snowmelt. This is about 3 weeks earlier than normal. In a general statewide context, this is the worst April 1 snowpack since 1977.

## PRECIPITATION

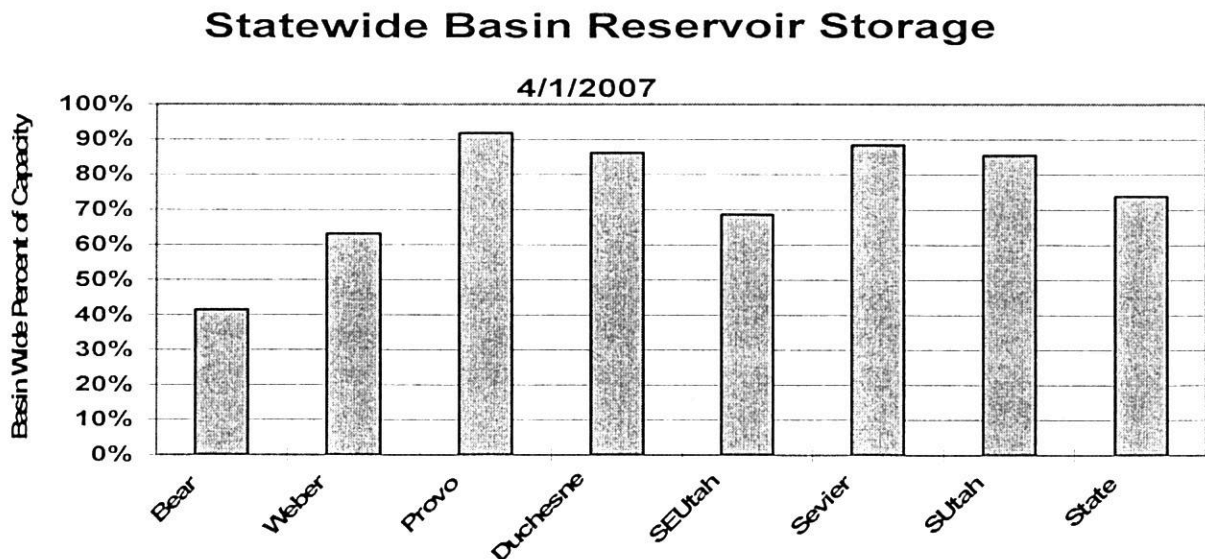
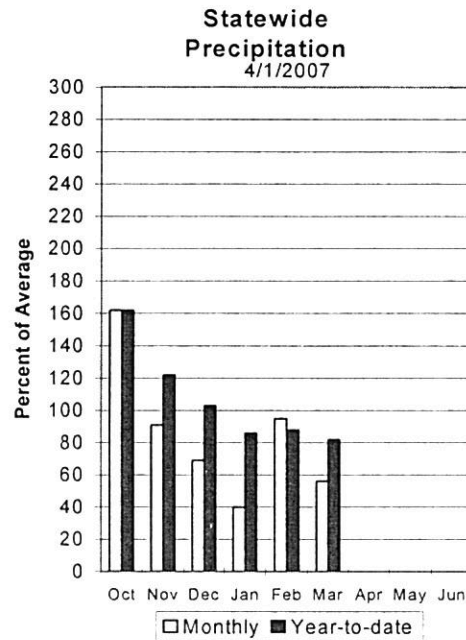
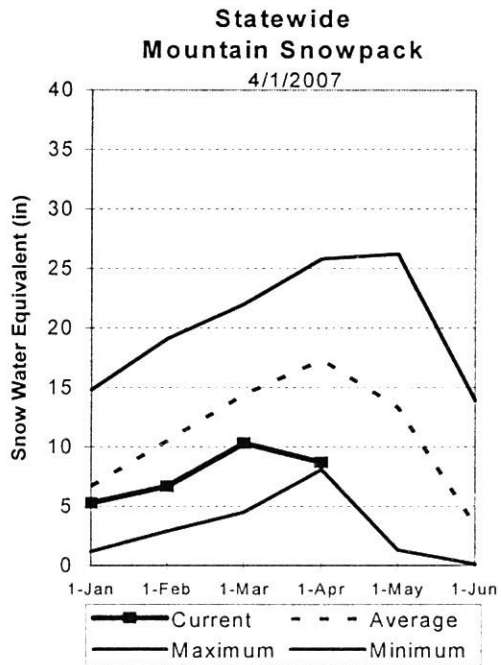
Mountain precipitation during March was much below normal in northern Utah (58%-65%) and much below normal across southern Utah (34%-51%). This brings the seasonal accumulation (Oct-Mar) to 82% of average statewide and ranges from 76% on southwest Utah to 88% over southeastern Utah.

## RESERVOIRS

Storage in 41 of Utah's key irrigation reservoirs is at 74% of capacity up 3% from last month. This is also an increase of 3% from last year. Reservoirs across the State have been making steady gains in storage. Bear Lake really is the last reservoir to remain in an extremely low condition due to the prolonged drought.

## STREAMFLOW

Snowmelt streamflows are expected to have a wide range from much below average to near average across the state of Utah this year. Forecast streamflows range from 3% on North Creek near Monticello to 68% of average for the Bear River near State Line. Most flows are forecast to be in the 40% to 55% range.





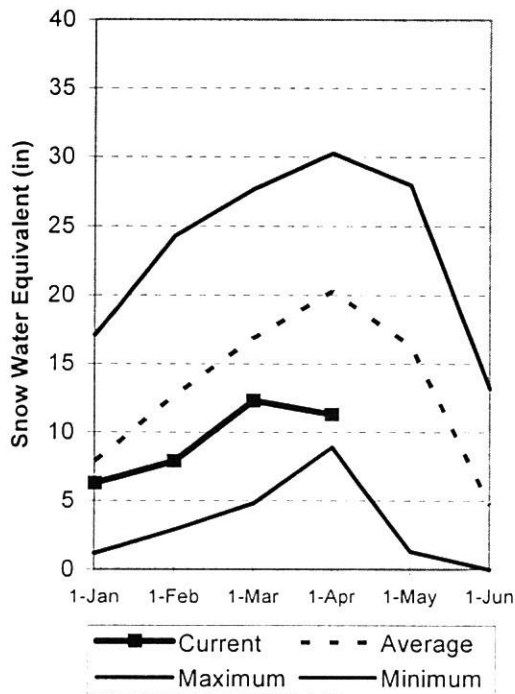
## Bear River Basin

April 1, 2007

Snowpacks on the Bear River Basin are much below average at 55% of normal, about 44% of last year. Specific sites range from 0% to 76% of normal. March precipitation was much below average at 65%, which brings the seasonal accumulation (Oct-Mar) to 80% of average. Soil moisture levels in runoff producing areas are at 74% of saturation in the upper 2 feet of soil compared to 61% last year. This is due mainly to above average precipitation in October. Forecast streamflows are much below average (32%-68%) volumes for this spring. Reservoir storage is low at 42% of capacity, 14% more than last year. The Surface Water Supply Index is at 21% for the Bear River, or 79% of years have had more total water available. Water supply conditions are much below normal due to low streamflow and reservoir storage. Since 1971 only one year, 1992, had worse snowpack conditions.

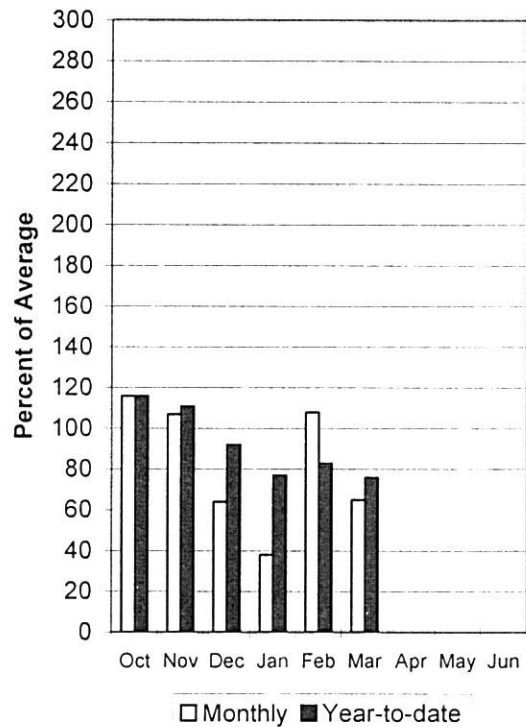
### Bear River Snowpack

4/1/2007



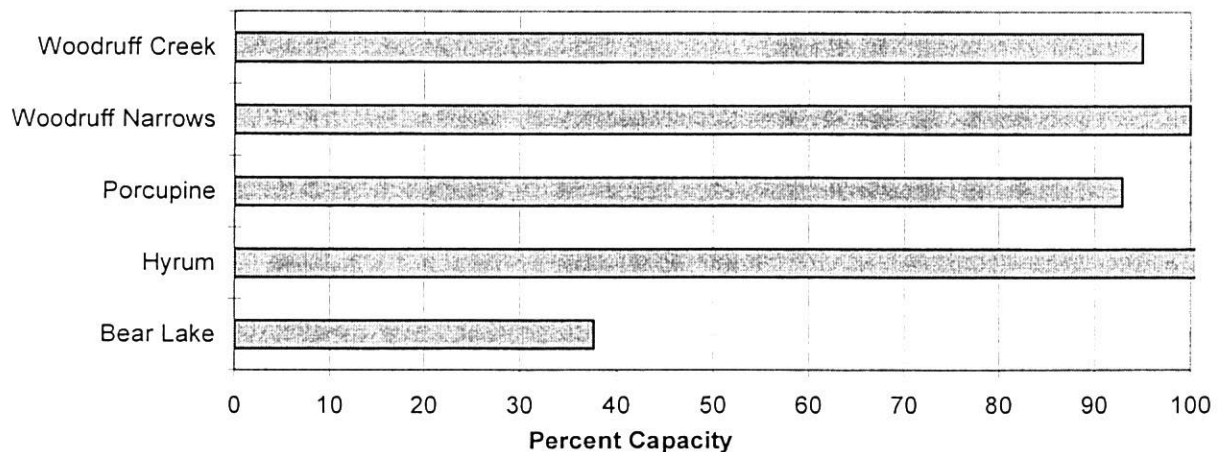
### Bear River Precipitation

4/1/2007



### Reservoir Storage

4/1/2007



BEAR RIVER BASIN  
Streamflow Forecasts - April 1, 2007

Forecast Point	Forecast Period	<<===== Drier ===== Future Conditions ===== Wetter =====>>						30-Yr Avg. (1000AF)
		Chance Of Exceeding *						
		90% (1000AF)	70% (1000AF)	50% (1000AF)	(% AVG.)	30% (1000AF)	10% (1000AF)	
Bear River nr UT-WY State Line	APR-JUL	56	68	77	68	86	101	113
Bear River ab Reservoir nr Woodruff	APR-JUL	28	48	64	47	82	114	136
Big Creek nr Randolph	APR-JUL	0.3	1.1	1.8	37	2.7	4.3	4.9
Smiths Fork nr Border	APR-JUL	44	55	64	62	73	88	103
Bear River at Stewart Dam	APR-JUL	42	60	75	32	91	118	234
Little Bear River at Paradise	APR-JUL	5.2	9.9	14.0	30	18.8	27	46
Logan R Abv State Dam Nr Logan	APR-JUL	28	42	53	42	65	86	126
Blacksmith Fk Abv Up&L Dam Nr Hyrum	APR-JUL	12.2	18.2	23	48	28	37	48

BEAR RIVER BASIN Reservoir Storage (1000 AF) - End of March					BEAR RIVER BASIN Watershed Snowpack Analysis - April 1, 2007				
Reservoir	Usable Capacity	*** Usable Storage ***			Watershed	Number of Data Sites	This Year as % of		
		This Year	Last Year	Avg			Last Yr	Average	
BEAR LAKE	1302.0	490.3	325.3	---	BEAR RIVER, UPPER (abv Ha	6	53	64	
HYRUM	15.3	15.4	11.4	12.2	BEAR RIVER, LOWER (blw Ha	8	39	50	
PORCUPINE	11.3	10.5	11.2	6.7	LOGAN RIVER	4	41	55	
WOODRUFF NARROWS	57.3	57.3	42.0	32.7	RAFT RIVER	1	55	98	
WOODRUFF CREEK	4.0	3.8	4.0	---	BEAR RIVER BASIN	14	44	55	

\* 90%, 70%, 50%, 30%, and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table.

The average is computed for the 1971-2000 base period.

- (1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.  
(2) - The value is natural volume - actual volume may be affected by upstream water management.

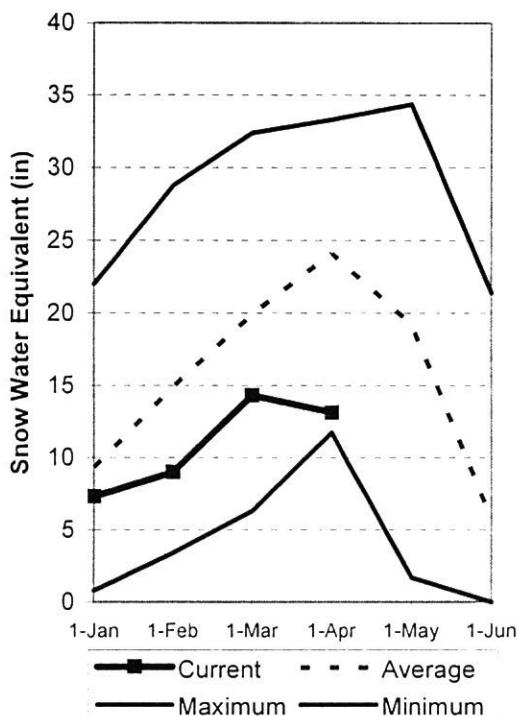
# Weber and Ogden River Basins

April 1, 2007

Snowpacks on the Weber and Ogden Watersheds are much below average at 54%, about 42% of last year. Individual sites range from 0% to 85% of average. March precipitation was much below average at 65% bringing the seasonal accumulation (Oct-Mar) to 80% of average. Soil moisture levels in runoff producing areas are at 72% of saturation in the upper 2 feet of soil compared to 62% last year. Streamflow forecasts range from 29% to 68% of average. Reservoir storage is at 63% of capacity, 15% lower than last year. The Surface Water Supply Index is at 12% for the Weber River and at 19% for the Ogden River. Overall water supply conditions are much below normal. Only one year since 1971 had worse snowpack conditions, that was in 1977.

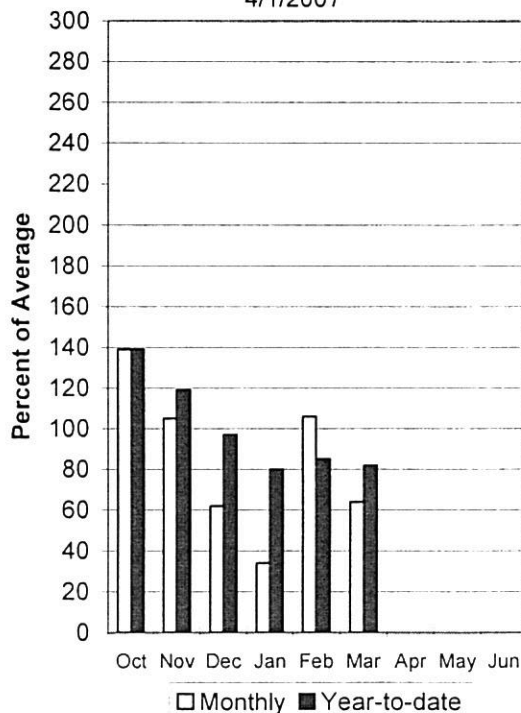
## Weber River Snowpack

4/1/2007



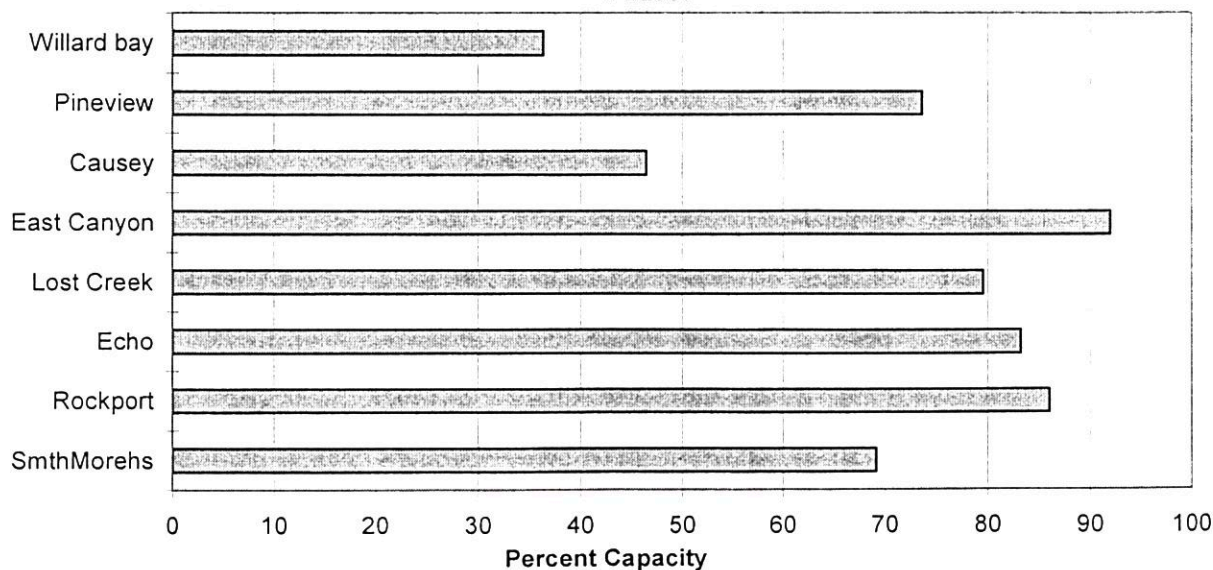
## Weber River Precipitation

4/1/2007



## Reservoir Storage

4/1/2007





WEBER & OGDEN WATERSHEDS in Utah  
Streamflow Forecasts - April 1, 2007

Forecast Point	Forecast Period	<<===== Drier =====		Future Conditions =====		===== Wetter =====>>		30-Yr Avg. (1000AF)
		90%	70%	50%		30%	10%	
		(1000AF)	(1000AF)	(1000AF)	(% AVG.)	(1000AF)	(1000AF)	
Smith & Morehouse Res inflow	APR-JUL	16.7	20	23	68	26	29	34
Weber River nr Oakley	APR-JUL	54	69	80	65	91	106	123
Rockport Resv Inflow Nr Wanship	APR-JUL	58	74	86	64	98	114	134
Weber River nr Coalville	APR-JUL	62	69	74	54	79	87	137
Chalk Creek at Coalville	APR-JUL	9.6	16.4	22	49	28	39	45
Echo Reservoir inflow	APR-JUL	46	75	95	53	115	144	179
Lost Creek Reservoir inflow	APR-JUL	2.4	4.3	5.9	34	7.7	10.9	17.6
East Canyon Reservoir inflow	APR-JUL	6.9	10.8	14.0	45	17.6	24	31
Weber River at Gateway	APR-JUL	125	145	158	45	171	191	355
SF Ogden River nr Huntsville	APR-JUL	9.6	14.8	19.0	30	24	32	64
Pineview Reservoir inflow	APR-JUL	7.0	27	40	30	53	73	133
Wheeler Creek nr Huntsville	APR-JUL	0.8	1.3	1.8	29	2.3	3.2	6.3

WEBER & OGDEN WATERSHEDS in Utah Reservoir Storage (1000 AF) - End of March					WEBER & OGDEN WATERSHEDS in Utah Watershed Snowpack Analysis - April 1, 2007			
Reservoir	Usable Capacity	*** Usable Storage ***			Watershed	Number of Data Sites	This Year as % of	
		This Year	Last Year	Avg			Last Yr	Average
CAUSEY	7.1	3.3	2.1	2.6	OGDEN RIVER	4	36	43
EAST CANYON	49.5	45.5	36.6	36.5	WEBER RIVER	9	44	60
ECHO	73.9	61.5	53.3	51.5	WEBER & OGDEN WATERSHEDS	13	41	54
LOST CREEK	22.5	17.9	16.5	14.1				
PINEVIEW	110.1	81.1	72.4	61.7				
ROCKPORT	60.9	52.4	45.1	35.1				
WILLARD BAY	215.0	78.2	192.2	160.9				

\* 90%, 70%, 50%, 30%, and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table.

The average is computed for the 1971-2000 base period.

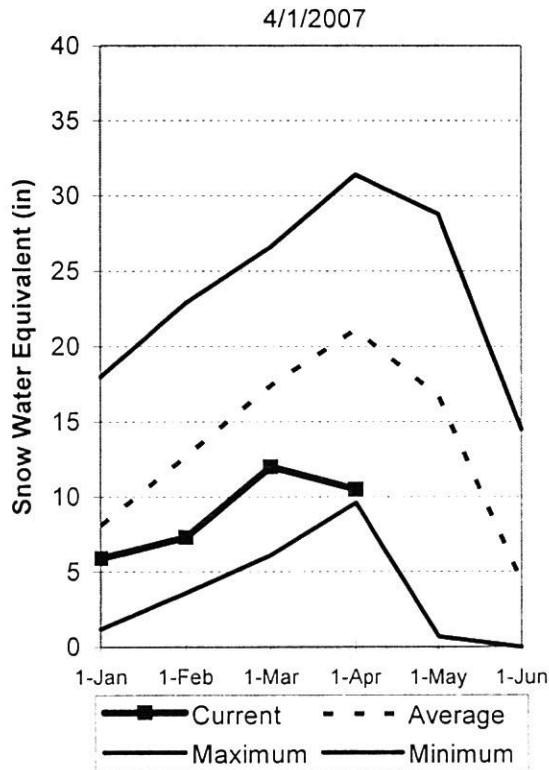
- (1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.  
(2) - The value is natural volume - actual volume may be affected by upstream water management.

# Utah Lake, Jordan River & Tooele Valley Basins

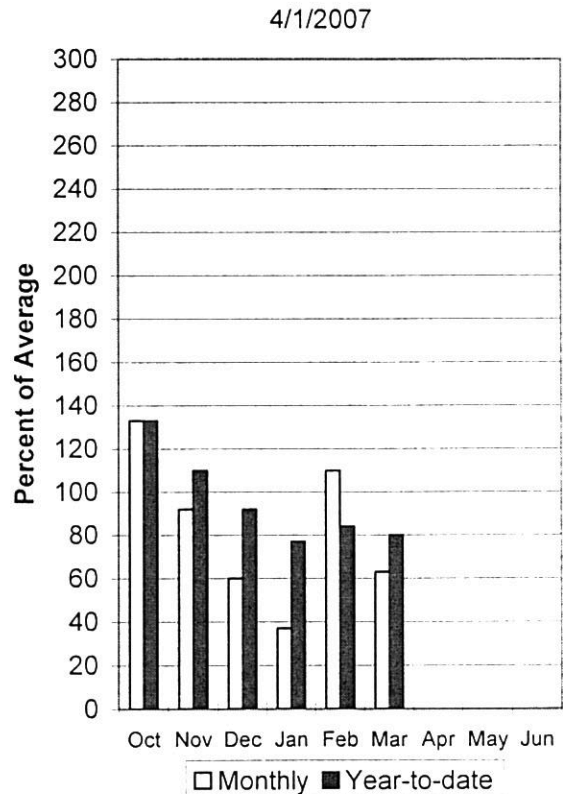
April 1, 2007

Snowpack over these regions is much below average at 50%, which is 39% of last year and down 19% from last month. This is the lowest April 1 snowpack for this region since 1977. Individual sites range from 0% to 80% of average. March precipitation was much below average at 63%, bringing the seasonal accumulation (Oct-Mar) to 80% of average. Soil moisture levels in runoff producing areas are at 65% of saturation in the upper 2 feet of soil compared to 54% last year. Reservoir storage is at 92% of capacity, 4% higher than last year. Streamflow forecasts range from 26% to 62% of average. The Surface Water Supply Index is at 48%, indicating general water supply conditions are near normal due to good reservoir carryover.

## Provo River Snowpack

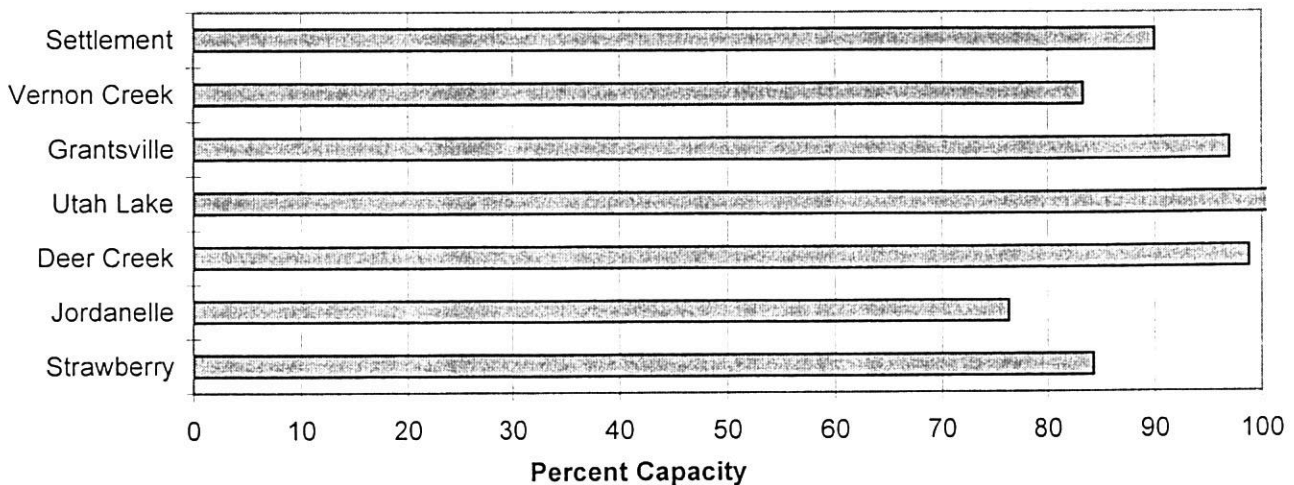


## Provo River Precipitation



## Reservoir Storage

4/1/2007



UTAH LAKE, JORDAN RIVER & TOOELE VALLEY  
Streamflow Forecasts - April 1, 2007

Forecast Point	Forecast Period	<<===== Drier =====		Future Conditions =====		===== Wetter =====>>		30-Yr Avg. (1000AF)
		Chance Of Exceeding *						
		90% (1000AF)	70% (1000AF)	50% (1000AF)	(% AVG.)	30% (1000AF)	10% (1000AF)	
Spanish Fork River nr Castilla	APR-JUL	5.4	14.4	23	30	34	53	77
Provo River nr Woodland	APR-JUL	34	45	53	52	62	76	103
Provo River nr Hailstone	APR-JUL	41	48	54	50	60	69	109
Deer Creek Resv Inflow	APR-JUL	11.0	40	60	48	80	109	126
American Fk Abv Upper Powerplant	APR-JUL	7.2	11.1	14.2	44	17.7	24	32
Utah Lake inflow	APR-JUL	53	81	103	32	156	235	325
West Canyon Ck Nr Cedar Fort	APR-JUL	0.3	0.6	0.8	33	1.1	1.5	2.4
Little Cottonwood Ck nr SLC	APR-JUL	14.9	19.0	22	55	25	30	40
Big Cottonwood Ck nr SLC	APR-JUL	13.6	17.8	21	55	24	30	38
Mill Creek nr SLC	APR-JUL	1.3	2.1	2.8	40	3.6	4.8	7.0
Parley's Creek nr SLC	APR-JUL	1.8	3.7	5.4	32	7.4	11.0	16.7
Dell Fork nr SLC	APR-JUL	0.6	1.4	2.1	31	3.0	4.6	6.8
Emigration Creek nr SLC	APR-JUL	0.1	0.7	1.2	26	1.9	3.1	4.5
City Creek nr SLC	APR-JUL	1.4	2.4	3.2	37	4.1	5.7	8.7
Vernon Creek nr Vernon	APR-JUL	0.2	0.4	0.6	38	0.8	1.1	1.5
Settlement Creek Abv Resv Nr Tooele	APR-JUL	0.3	0.5	0.7	33	0.9	1.3	2.1
South Willow Creek nr Grantsville	APR-JUL	1.2	1.6	2.0	62	2.4	3.0	3.2

UTAH LAKE, JORDAN RIVER & TOOELE VALLEY  
Reservoir Storage (1000 AF) - End of March

UTAH LAKE, JORDAN RIVER & TOOELE VALLEY  
Watershed Snowpack Analysis - April 1, 2007

Reservoir	Usable Capacity	*** Usable Storage ***			Watershed	Number of Data Sites	This Year as % of	
		This Year	Last Year	Avg			Last Yr	Average
DEER CREEK	149.7	147.9	128.2	113.0	PROVO RIVER & UTAH LAKE	7	34	40
GRANTSVILLE	3.3	3.2	2.9	2.7	PROVO RIVER	4	36	43
SETTLEMENT CREEK	1.0	0.9	0.8	0.7	JORDAN RIVER & GREAT SALT	6	39	60
STRAWBERRY-ENLARGED	1105.9	932.1	841.2	648.8	TOOELE VALLEY WATERSHEDS	3	45	49
UTAH LAKE	870.9	922.0	912.0	855.8	UTAH LAKE, JORDAN RIVER &	16	38	50
VERNON CREEK	0.6	0.5	0.5	---				

\* 90%, 70%, 50%, 30%, and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table.

The average is computed for the 1971-2000 base period.

- (1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.  
(2) - The value is natural volume - actual volume may be affected by upstream water management.



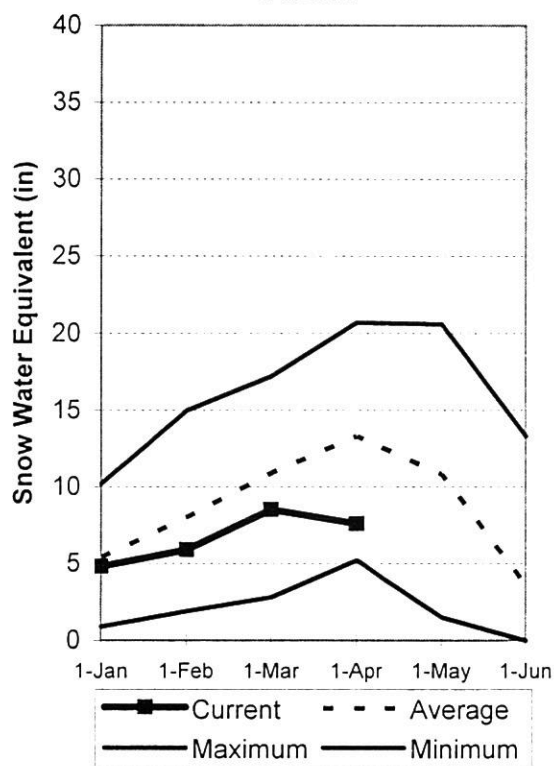
# Uintah Basin and Dagget SCD's

April 1, 2007

Snowpack across the Uintas is much below average at 57%, which is just 49% of last year. This is the worst April 1 snowpack on the Uintas since 1977! Individual sites on the North Slope range from 56% to 97% and the South Slope ranges from 0% to 90% of average. Precipitation during March was much below average at 58% bringing the seasonal accumulation (Oct-Mar) to 85% of average. Soil moisture values in runoff producing areas are at 61% of saturation in the upper 2 feet of soil compared to 36% last year. Reservoir storage is at 86% of capacity, 8% more than last year. Streamflow forecasts range from 17% to 69% of average. The Surface Water Supply Index for the western area is 67% and for the eastern area it is 28% indicating above normal conditions on the west side and much below normal for the eastern area. General water supply conditions range from above average on the west side thanks to excellent reservoir carryover to much below average in the east as a result of record to near record low snowpack.

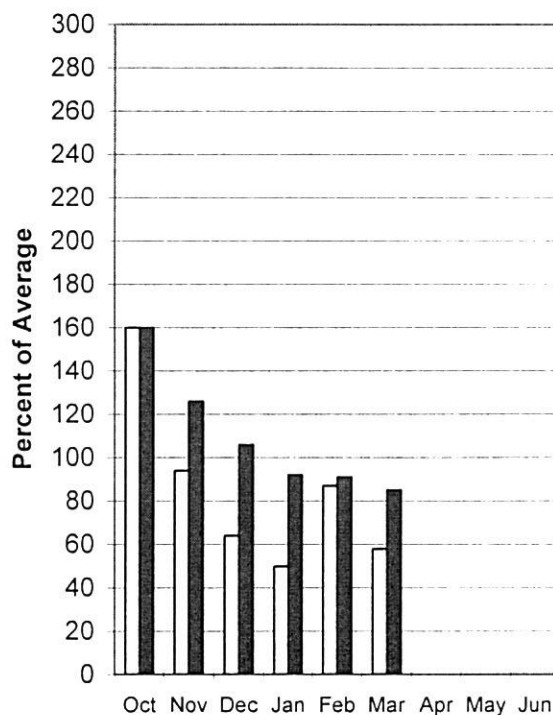
## Uinta Snowpack

4/1/2007



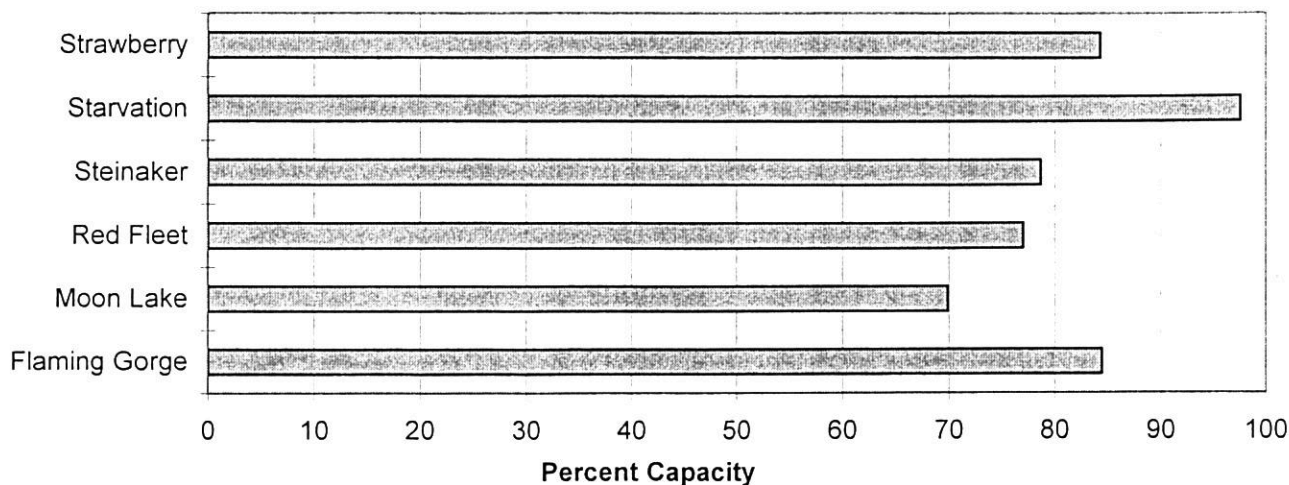
## Uinta Precipitation

4/1/2007



## Reservoir Storage

4/1/2007



UINTAH BASIN & DAGGET SCD'S  
Streamflow Forecasts - April 1, 2007

Forecast Point	Forecast Period	<<----- Drier ----- Future Conditions ----- Wetter ----->>						30-Yr Avg. (1000AF)
		Chance Of Exceeding *						
		90% (1000AF)	70% (1000AF)	50% (1000AF)	(% AVG.)	30% (1000AF)	10% (1000AF)	
Blacks Fork nr Robertson	APR-JUL	44	56	65	68	75	90	95
EF of Smiths Fork nr Robertson	APR-JUL	11.9	16.5	20	69	24	30	29
Flaming Gorge Reservoir Inflow (2)	APR-JUL	256	405	525	44	661	889	1190
Big Brush Ck abv Red Fleet Resv	APR-JUL	8.5	11.8	14.3	68	17.1	22	21
Ashley Creek nr Vernal	APR-JUL	17.8	25	30	58	36	45	52
WF Duchesne River nr Hanna (2)	APR-JUL	5.2	7.9	10.0	42	12.4	16.4	24
Duchesne R nr Tabiona (2)	APR-JUL	22	32	40	38	49	63	105
Upper Stillwater Resv Inflow	APR-JUL	33	40	45	55	51	60	82
Rock Ck nr Mountain Home (2)	APR-JUL	35	43	50	56	57	68	89
Duchesne R abv Knight Diversion (2)	APR-JUL	54	72	86	46	101	125	188
Strawberry R nr Soldier Springs (2)	APR-JUL	2.5	7.0	11.5	20	17.1	27	59
Currant Creek Reservoir Inflow (2)	APR-JUL	2.5	3.9	7.0	28	11.0	18.5	25
Strawberry R nr Duchesne (2)	APR-JUL	6.0	12.0	20	17	30	48	121
Lake Fork River Moon Lake Inflow	APR-JUL	26	33	38	56	44	52	68
Yellowstone River nr Altonah	APR-JUL	23	30	36	58	42	52	62
Duchesne R at Myton (2)	APR-JUL	18.0	45	70	27	101	157	260
Whiterocks near Whiterocks	APR-JUL	17.9	26	32	57	39	50	56
Duchesne R nr Randlett (2)	APR-JUL	17.0	49	80	25	119	190	324

UINTAH BASIN & DAGGET SCD'S  
Reservoir Storage (1000 AF) - End of March

Reservoir	Usable Capacity	*** Usable Storage ***		
		This Year	Last Year	Avg
FLAMING GORGE	3749.0	3166.0	3022.0	2920.0
MOON LAKE	49.5	34.6	27.4	30.8
RED FLEET	25.7	19.8	22.9	18.8
STEINAKER	33.4	26.3	33.2	24.2
STARVATION	165.3	161.3	139.6	138.6
STRAWBERRY-ENLARGED	1105.9	932.1	841.2	648.8

UINTAH BASIN & DAGGET SCD'S  
Watershed Snowpack Analysis - April 1, 2007

Watershed	Number of Data Sites	This Year as % of	
		Last Yr	Average
UPPER GREEN RIVER in UTAH	6	68	65
ASHLEY CREEK	2	51	45
BLACK'S FORK RIVER	2	66	68
SHEEP CREEK	1	107	78
DUCHESNE RIVER	11	44	54
LAKE FORK-YELLOWSTONE CRE	4	55	66
STRAWBERRY RIVER	4	25	33
UINTAH-WHITEROCKS RIVERS	2	72	81
UINTAH BASIN & DAGGET SCD	17	49	57

\* 90%, 70%, 50%, 30%, and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table.

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- (1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.  
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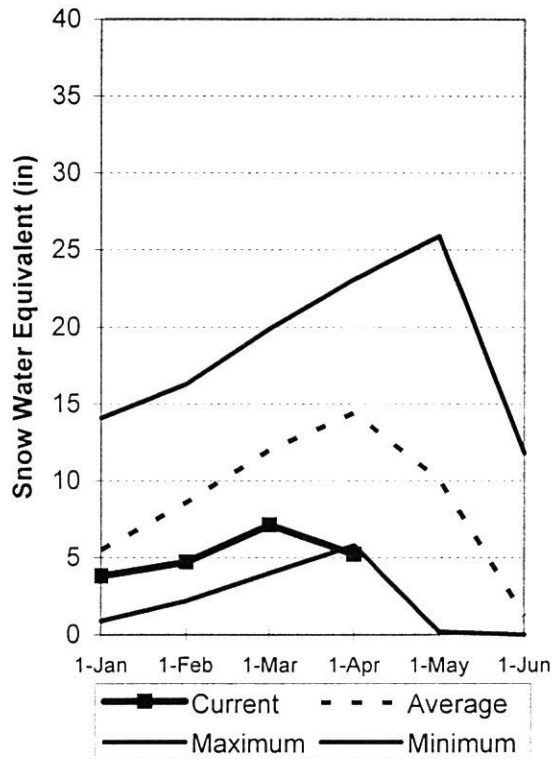
# Carbon, Emery, Wayne, Grand and San Juan Co.

April 1, 2007

Snowpacks in this region are much below normal at 36% of average, about 35% of last year. Individual sites range from 0% to 98% of average, with Boulder Mountain and the Aquarius Plateau being the best of the worst. This is the worst April 1 snowpack in the 36 years of record for this area, with only two years having a greater March snowpack decrease. Precipitation during March was much below average at 51%, bringing the seasonal accumulation (Oct-Mar) to 88% of normal. Soil moisture estimates in runoff producing areas are at 73% of saturation in the upper 2 feet of soil compared to 44% last year and up 25% from last month, due to early snowmelt. Forecast streamflows range from 4% to 68% of average. Reservoir storage is at 69% of capacity, up 5% from last year at this time. Surface Water Supply Indices for the area are: Price 28%, San Rafael area 11% and Moab 18%. General runoff and water supply conditions are much below normal.

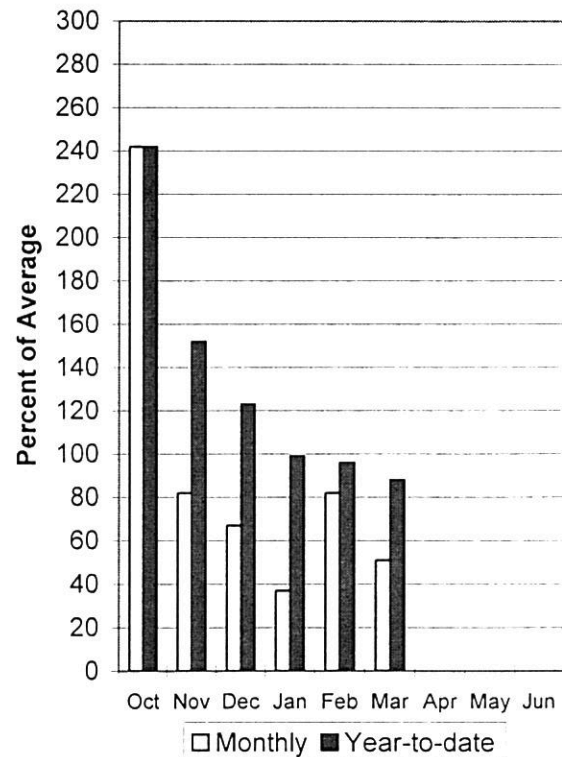
## Southeast Utah Snowpack

4/1/2007



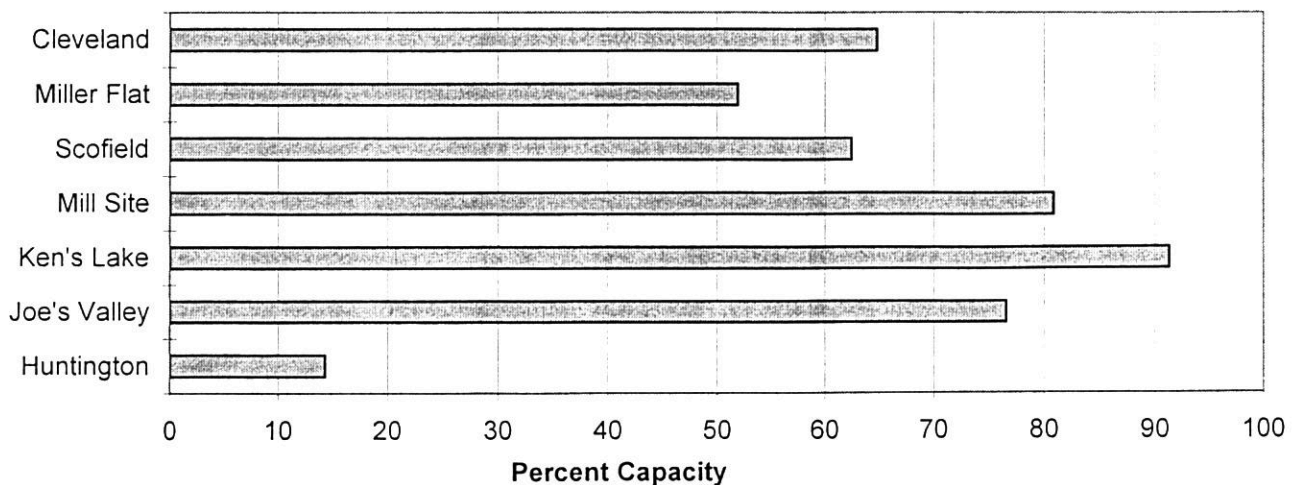
## Southeast Utah Precipitation

4/1/2007



## Reservoir Storage

4/1/2007





CARBON, EMERY, WAYNE, GRAND, & SAN JUAN Co.  
Streamflow Forecasts - April 1, 2007

Forecast Point	Forecast Period	<<===== Drier =====		Future Conditions =====		===== Wetter =====>>		30-Yr Avg. (1000AF)
		90% (1000AF)	70% (1000AF)	50% (1000AF)	Chance Of Exceeding * (% AVG.)	30% (1000AF)	10% (1000AF)	
Gooseberry Creek nr Scofield	APR-JUL	2.5	3.6	4.5	38	5.5	7.1	11.9
Price River near Scofield Reservoir	APR-JUL	4.5	8.6	16.0	36	23	34	45
White River blw Tabbyune Creek	APR-JUL	1.4	2.8	3.9	23	5.2	7.6	17.3
Green River at Green River, UT (2)	APR-JUL	540	950	1400	44	1850	2510	3170
Huntington Ck Inflow to Electric Lk	APR-JUL	2.5	3.9	5.0	32	6.3	8.3	15.7
Huntington Ck nr Huntington	APR-JUL	2.5	7.7	16.0	33	24	36	49
Joe's Valley Resv Inflow	APR-JUL	12.8	17.3	22	38	27	36	58
Ferron Ck (Upper Station) nr Ferron	APR-JUL	9.4	12.9	15.5	40	18.4	23	39
Colorado River Near Cisco (2)	APR-JUL	1190	2360	3150	68	3950	5120	4650
Mill Creek at Sheley Tunnel nr Moab	APR-JUL	1.1	1.3	1.6	32	1.9	2.5	5.0
Seven Mile Ck nr Fish Lake	APR-JUL	2.5	2.8	3.5	50	4.2	5.4	7.0
Muddy Creek nr Emery	APR-JUL	3.9	5.7	7.2	36	8.8	11.5	19.9
North Ck ab R.S. nr Monticello	MAR-JUL	0.0	0.0	0.1	7	0.1	0.2	0.8
	APR-JUL	0.0	0.0	0.0	4	0.1	0.1	0.7
South Ck ab Lloyd's Res nr Monticello	MAR-JUL	0.0	0.1	0.1	9	0.2	0.4	1.4
	APR-JUL	0.0	0.0	0.1	7	0.2	0.3	1.3
Recapture Ck Bl Johnson Ck nr Blandi	MAR-JUL	0.1	0.4	0.7	14	1.1	2.1	5.0
	APR-JUL	0.1	0.3	0.6	13	1.0	1.8	4.5
San Juan River near Bluff (2)	APR-JUL	320	490	680	55	785	1050	1230

CARBON, EMERY, WAYNE, GRAND, & SAN JUAN Co.  
Reservoir Storage (1000 AF) - End of March

CARBON, EMERY, WAYNE, GRAND, & SAN JUAN Co.  
Watershed Snowpack Analysis - April 1, 2007

Reservoir	Usable Capacity	*** Usable Storage ***			Watershed	Number of Data Sites	This Year as % of	
		This Year	Last Year	Avg			Last Yr	Average
HUNTINGTON NORTH	4.2	0.6	4.2	3.9	PRICE RIVER	3	34	38
JOE'S VALLEY	61.6	47.2	46.3	41.4	SAN RAFAEL RIVER	3	32	40
KEN'S LAKE	2.3	2.1	2.2	1.4	MUDDY CREEK	1	21	27
MILL SITE	16.7	13.5	9.2	86.2	FREMONT RIVER	3	67	56
SCOFIELD	65.8	41.1	34.7	34.7	LASAL MOUNTAINS	1	37	32
					BLUE MOUNTAINS	1	4	2
					WILLOW CREEK	1	17	8
					CARBON, EMERY, WAYNE, GRA	13	35	36

\* 90%, 70%, 50%, 30%, and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table.

The average is computed for the 1971-2000 base period.

- (1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.  
(2) - The value is natural volume - actual volume may be affected by upstream water management.

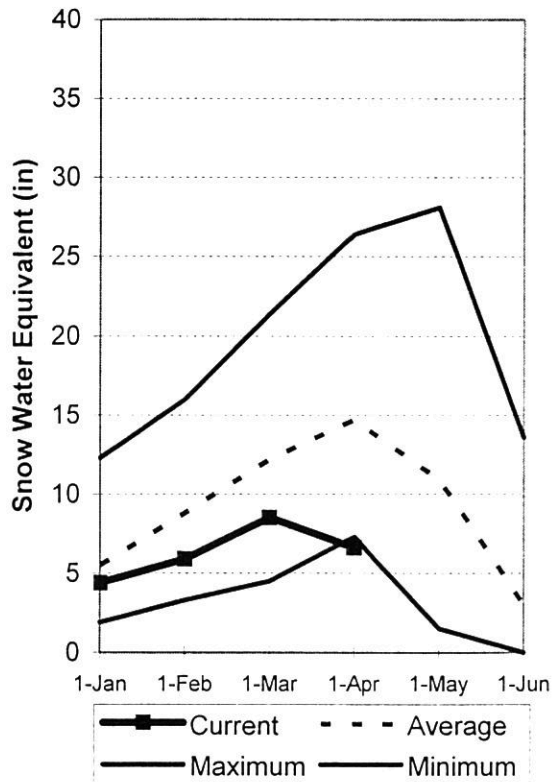
# Sevier and Beaver River Basins

April 1, 2007

Snowpacks on the Sevier River Basin are much below normal at 45% of average, about 46% of last year and down 24% relative to last month. Individual sites range from 0% to 88% of average. This is a new record low April 1 snowpack for the watershed. Precipitation during March was much below average at 42% of normal, bringing the seasonal accumulation (Oct-Mar) to 82% of average. Soil moisture estimates in runoff producing areas are at 69% of saturation in the upper 2 feet of soil compared to 59% last year. Streamflow forecasts range from 13% to 52% of average. Reservoir storage is at 88% of capacity, 10% less than last year. Surface Water Supply Indices are: Upper Sevier 42%, Lower Sevier 43% and Beaver 19%. Water supply conditions are near to much below average due to reservoir storage but with poor streamflow expected

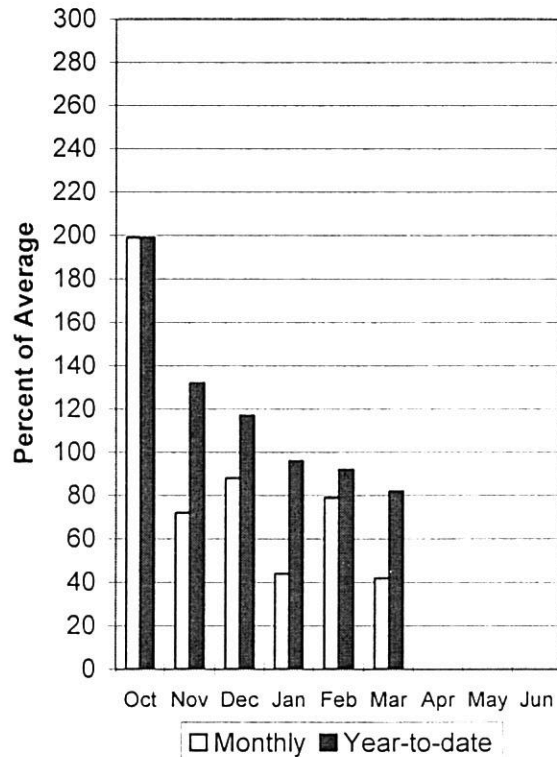
## Sevier River Snowpack

4/1/2007



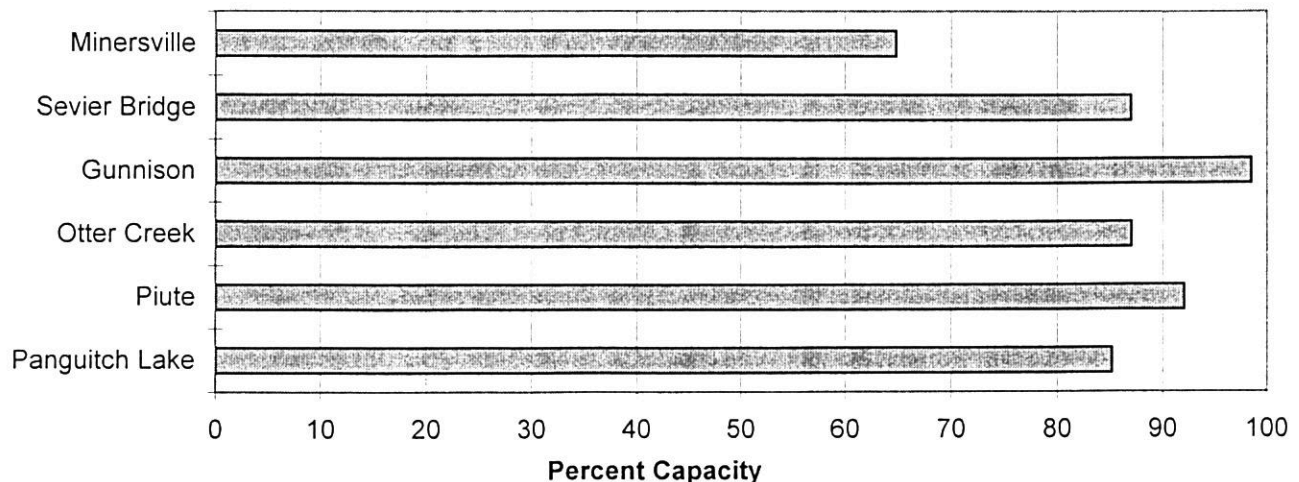
## Sevier River Precipitation

4/1/2007



## Reservoir Storage

4/1/2007



SEVIER & BEAVER RIVER BASINS  
Streamflow Forecasts - April 1, 2007

Forecast Point	Forecast Period	<<===== Drier =====		Future Conditions =====		===== Wetter =====>>		30-Yr Avg. (1000AF)
		Chance Of Exceeding *						
		90% (1000AF)	70% (1000AF)	50% (1000AF)	(% AVG.)	30% (1000AF)	10% (1000AF)	
Sevier River at Hatch	APR-JUL	11.4	16.2	20	36	24	31	55
Sevier River nr Kingston	APR-JUL	28	38	46	52	54	68	89
EF Sevier R nr Kingston	APR-JUL	4.6	9.7	14.2	37	19.6	29	38
Sevier R blw Piute Dam	APR-JUL	18.0	36	52	41	71	104	126
Clear Creek Abv Diversions Nr Sevier	APR-JUL	5.0	6.5	7.8	36	9.3	12.2	22
Salina Creek at Salina	APR-JUL	0.3	2.3	4.8	24	8.2	14.9	19.7
Manti Ck Blw Dugway Ck Nr Manti	APR-JUL	5.5	7.6	9.2	50	11.0	13.8	18.3
Sevier R nr Gunnison	APR-JUL	85	103	116	41	190	300	280
Chicken Creek nr Levan	APR-JUL	0.1	0.6	1.1	24	1.8	3.1	4.5
Oak Creek nr Oak City	APR-JUL	0.1	0.3	0.4	27	0.6	0.9	1.7
Beaver River nr Beaver	APR-JUL	4.1	6.8	9.1	34	11.7	16.1	27
Minersville Reservoir inflow	APR-JUL	0.2	0.9	2.1	13	4.0	7.6	16.6

SEVIER & BEAVER RIVER BASINS Reservoir Storage (1000 AF) - End of March					SEVIER & BEAVER RIVER BASINS Watershed Snowpack Analysis - April 1, 2007			
Reservoir	Usable Capacity	*** Usable Storage ***			Watershed	Number of Data Sites	This Year as % of	
		This Year	Last Year	Avg			Last Yr	Average
GUNNISON	20.3	16.9	20.3	16.3	UPPER SEVIER RIVER (south	8	47	43
MINERSVILLE (RkyFd)	23.3	15.1	23.0	17.9	EAST FORK SEVIER RIVER	3	47	43
OTTER CREEK	52.5	45.7	52.5	43.5	SOUTH FORK SEVIER RIVER	5	48	43
PIUTE	71.8	66.1	66.3	58.5	LOWER SEVIER RIVER (inclu	6	42	43
SEVIER BRIDGE	236.0	205.3	234.9	189.7	BEAVER RIVER	2	60	57
PANGUITCH LAKE	22.3	19.0	19.7	152.9	SEVIER & BEAVER RIVER BAS	16	47	45

\* 90%, 70%, 50%, 30%, and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table.

The average is computed for the 1971-2000 base period.

- (1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.  
(2) - The value is natural volume - actual volume may be affected by upstream water management.

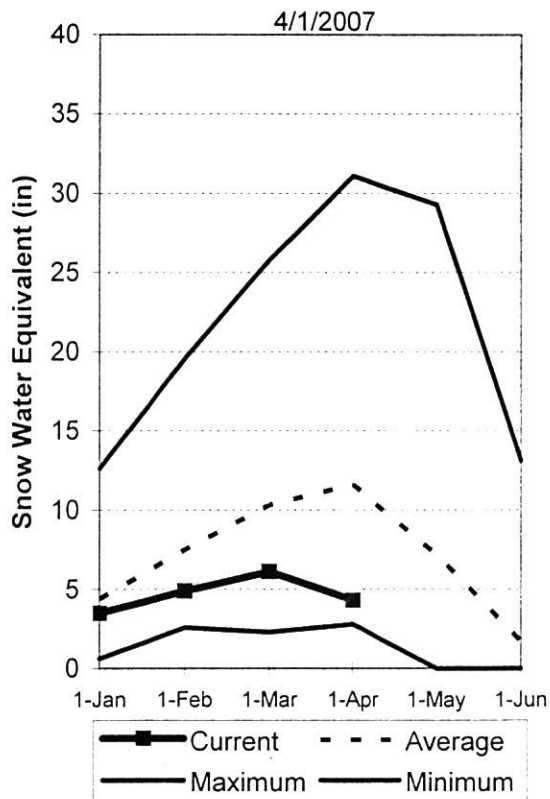


# E. Garfield, Kane, Washington, & Iron Co.

April 1, 2007

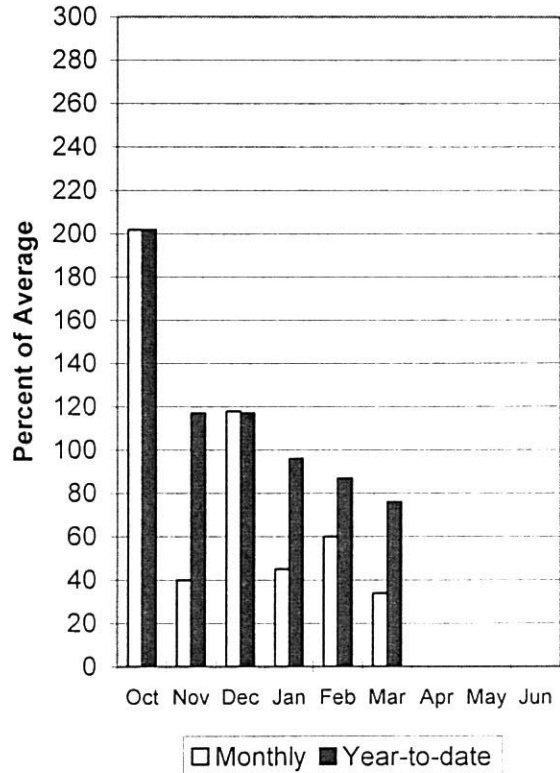
Snowpacks in this region are much below normal at 37% of average, about 43% of last year and down 22% relative to last month. Individual sites range from 0% to 98% of average. Precipitation in the month of March was much below average at 34%, bringing the seasonal accumulation (Oct-Mar) to 76% of average. Soil moisture estimates in runoff producing areas are at 66% of saturation in the upper 2 feet of soil compared to 50% last year. Forecast streamflows range from 20% to 36% of average. Reservoir storage is at 85% of capacity, 8% less than last year. The Surface Water Supply Index is at 29%, indicating much below average water supply conditions.

## Southwest Utah Snowpack



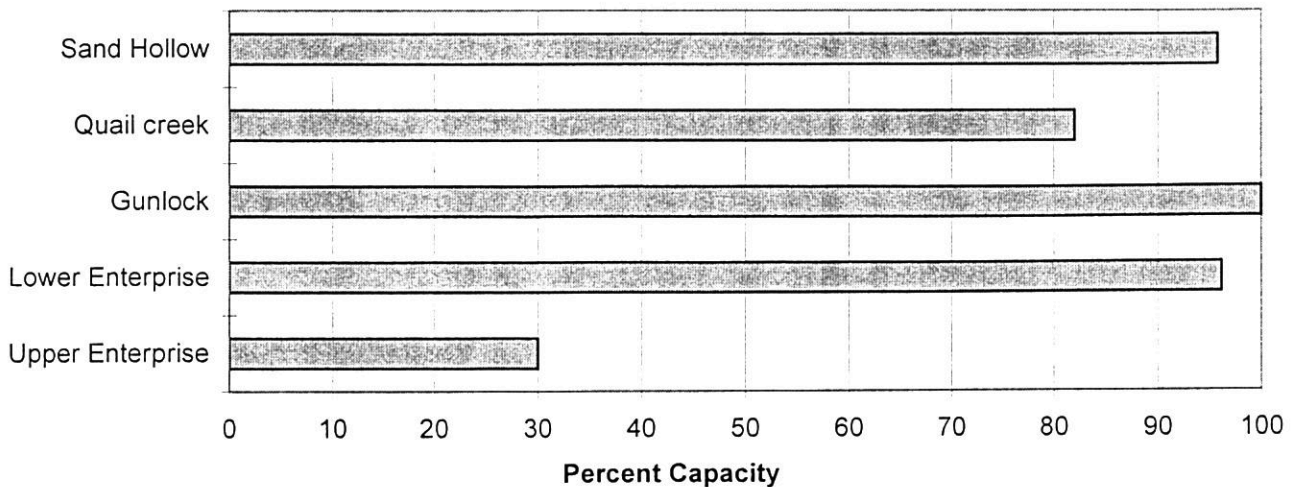
## Southwest Utah Precipitation

4/1/2007



## Reservoir Storage

4/1/2007



E. GARFIELD, KANE, WASHINGTON, & IRON Co.  
Streamflow Forecasts - April 1, 2007

Forecast Point	Forecast Period	<<===== Drier =====		Future Conditions		===== Wetter =====>>		30-Yr Avg. (1000AF)
		Chance Of Exceeding *						
		90% (1000AF)	70% (1000AF)	50% (1000AF)	(% AVG.)	30% (1000AF)	10% (1000AF)	
Lake Powell Inflow (2)	APR-JUL	1450	2970	4000	50	5030	6550	7930
Virgin River at Virgin	APR-JUL	16.6	19.2	23	36	26	34	64
Virgin River near Hurricane	APR-JUL	13.8	17.3	21	30	28	35	69
Santa Clara River nr Pine Valley	APR-JUL	0.4	0.8	1.1	20	1.6	2.5	5.5
Coal Creek nr Cedar City	APR-JUL	4.4	6.5	8.2	43	10.1	13.1	19.3

E. GARFIELD, KANE, WASHINGTON, & IRON Co.  
Reservoir Storage (1000 AF) - End of March

E. GARFIELD, KANE, WASHINGTON, & IRON Co.  
Watershed Snowpack Analysis - April 1, 2007

Reservoir	Usable Capacity	*** Usable Storage ***			Watershed	Number of Data Sites	This Year as % of	
		This Year	Last Year	Avg			Last Yr	Average
GUNLOCK	10.4	10.4	10.4	4.5	VIRGIN RIVER	5	35	31
LAKE POWELL	24322.0	11617.0	10710.0	---	PAROWAN	2	50	51
QUAIL CREEK	40.0	32.8	37.1	31.0	ENTERPRISE TO NEW HARMONY	2	0	0
UPPER ENTERPRISE	10.0	3.0	10.0	---	COAL CREEK	2	34	36
LOWER ENTERPRISE	2.6	2.5	1.1	137.1	ESCALANTE RIVER	2	78	73
					E. GARFIELD, KANE, WASHIN	9	45	37

\* 90%, 70%, 50%, 30%, and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table.

The average is computed for the 1971-2000 base period.

- (1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.  
(2) - The value is natural volume - actual volume may be affected by upstream water management.

UTAH SURFACE	WATER	SUPPLY	INDEX
Snow Surveys	NRCS	USDA	
Basin or Region	SWSI/%	Percentile	Years with
1-Apr-07			Similar SWSI
Bear River	-2.43	21%	95,02,06,90
Ogden River	-2.62	19%	01,81,90,04
Weber River	-3.15	12%	03,92,02,90
Provo	-0.17	48%	78,88,79,00
West Uintah Basin	1.39	67%	87,86,00,01
East Uintah Basin	-1.87	28%	03,81,91,88
Price River	-1.83	28%	03,89,05,98
San Rafael	-3.24	11%	94,90,89,92
Moab	-2.68	18%	90,89,03,01
Upper Sevier River	-0.60	42%	78,96,71,76
Lower Sevier River	-0.60	43%	91,68,76,89
Beaver River	-2.60	19%	72,03,76,64
Virgin River	-1.74	29%	02,04,96,85
Snow Surveys			SWSI Scale: -4 to 4
245 N Jimmy Doolittle Rd			Percentile: 0 - 100%
Salt Lake City, UT			
(801) 524-5213			

## What is a Surface Water Supply Index?

The Surface Water Supply Index (SWSI) is a predictive indicator of total surface water availability within a watershed for the spring and summer water use seasons. The index is calculated by combining pre-runoff reservoir storage (carryover) with forecasts of spring and summer streamflow which are based on current snowpack and other hydrologic variables. SWSI values are scaled from +4.1 (abundant supply) to -4.1 (extremely dry) with a value of zero (0) indicating median water supply as compared to historical analysis. SWSI's are calculated in this fashion to be consistent with other hydroclimatic indicators such as the Palmer Drought Index and the Precipitation index.

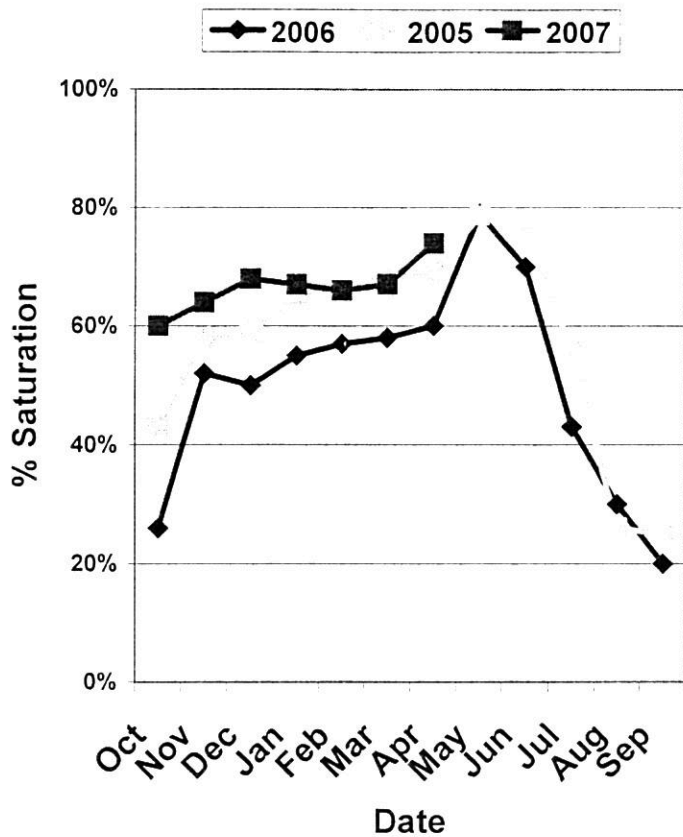
Utah Snow Surveys has also chosen to display the SWSI as a PERCENT CHANCE OF NON-EXCEEDANCE. While this is a very cumbersome name, it has the simplest application. It can be best thought of as a simple scale of 1 to 99 with 1 being the drought of record (driest possible conditions) and 99 being the flood of record (wettest possible conditions) and a value of 50 representing average conditions. This rating scale is a percentile rating as well, for example a SWSI of 75% means that this years water supply is greater than 75% of all historical events and that only 25% of the time has it been exceeded. Conversely a SWSI of 10% means that 90% of historical events have been greater than this one and that only 10% have had less total water supply. This scale is far more intuitive for most people and is totally comparable between basins: a SWSI of 50% means the same relative ranking on watershed A as it does on watershed B, which may not be strictly true of the +4 to -4 scale.

For more information on the SWSI go to: [www.ut.nrcs.usda.gov/snow/](http://www.ut.nrcs.usda.gov/snow/) on the water supply page. The entire period of historical record for reservoir storage and streamflow is available.

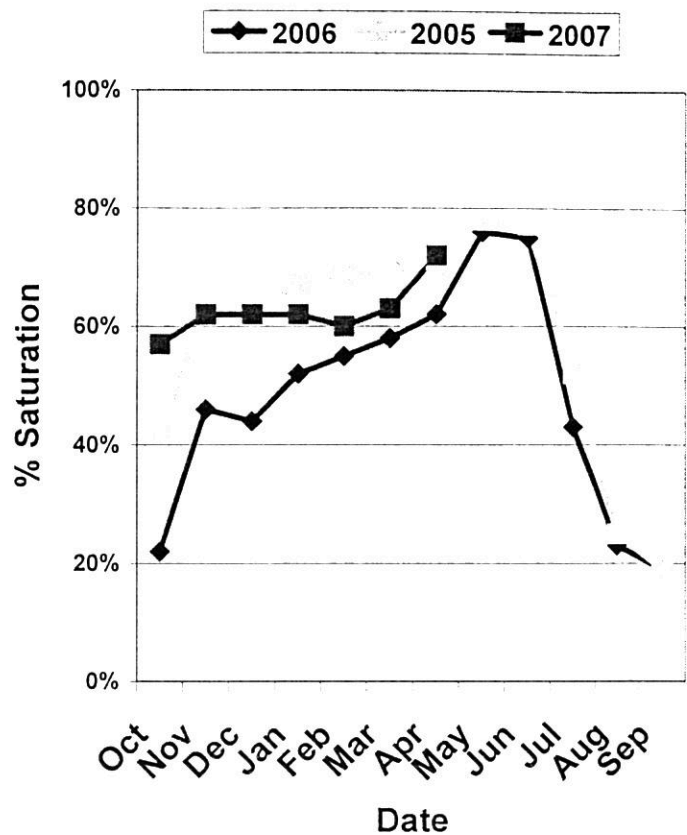


# Watershed Soil Moisture Charts for Utah Water Supply

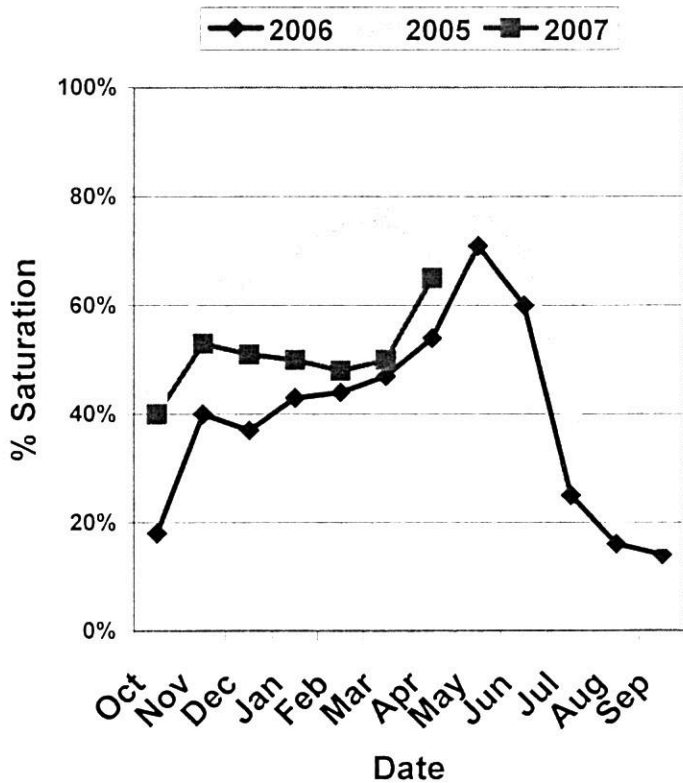
## Bear River Soil Moisture



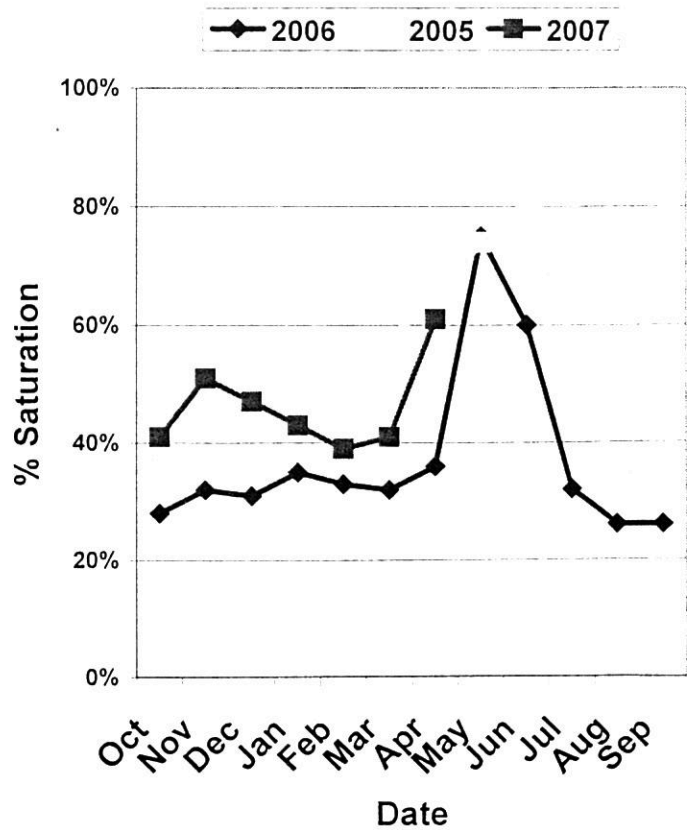
## Weber River Soil Moisture



## Jordan/Provo River Soil Moisture

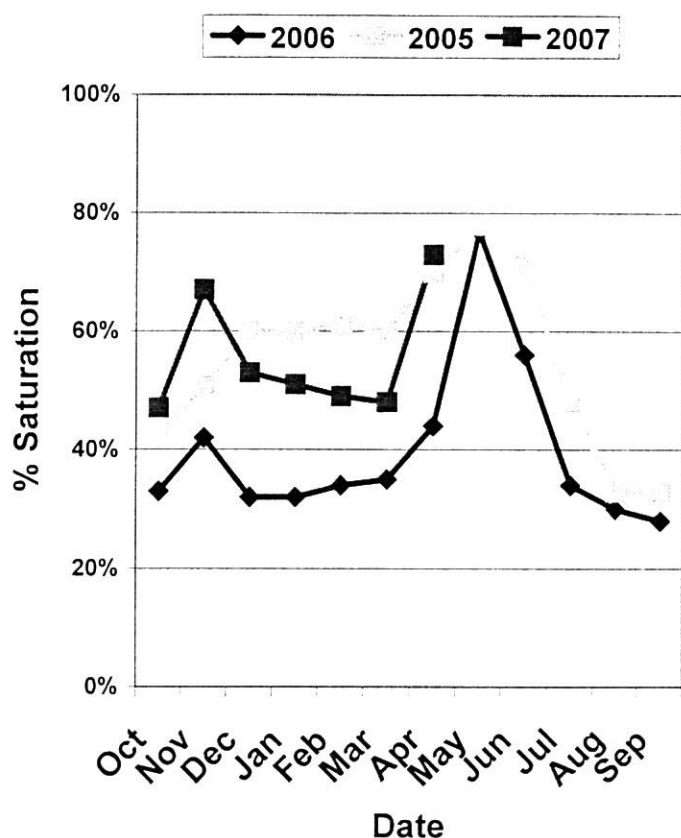


## Uintah Basin Soil Moisture

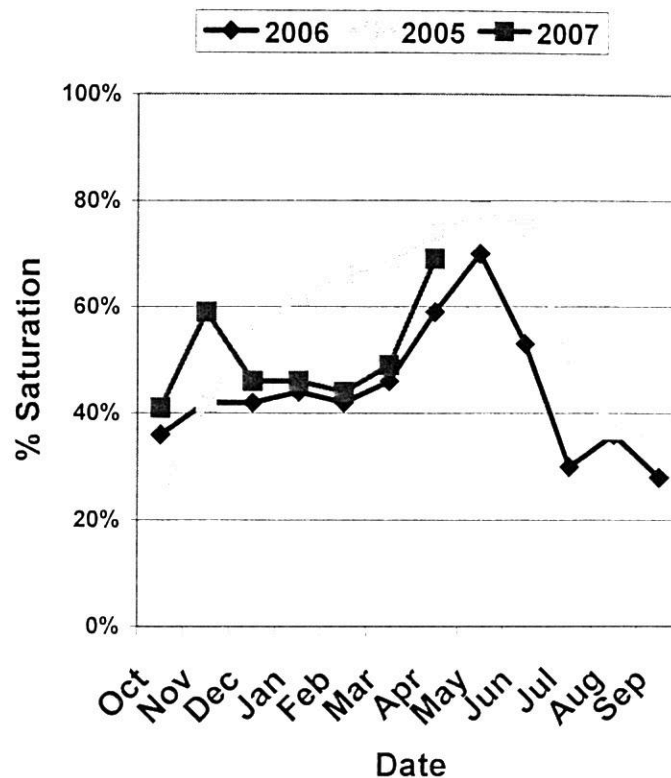


# Watershed Soil Moisture Charts for Utah Water Supply

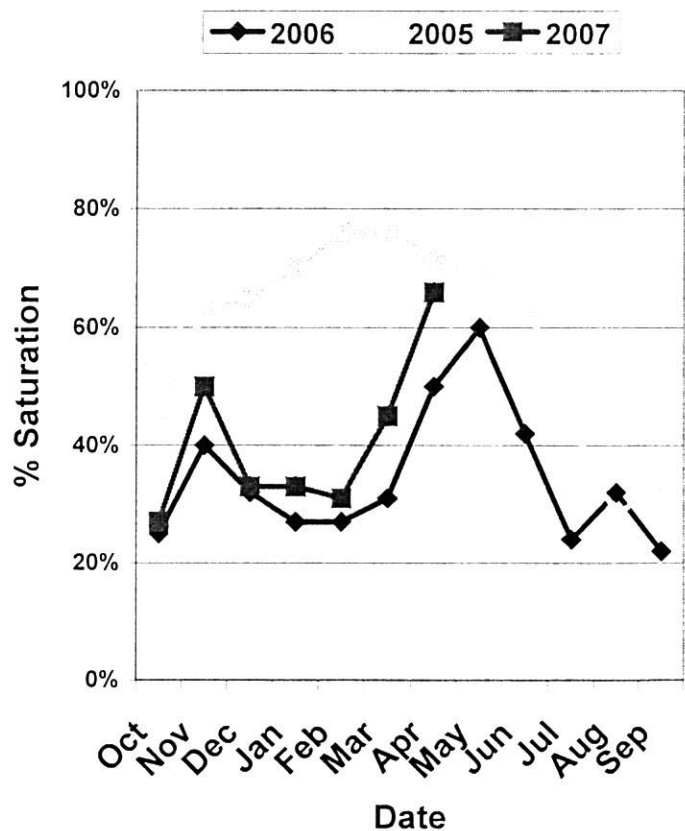
## South East Utah Soil Moisture



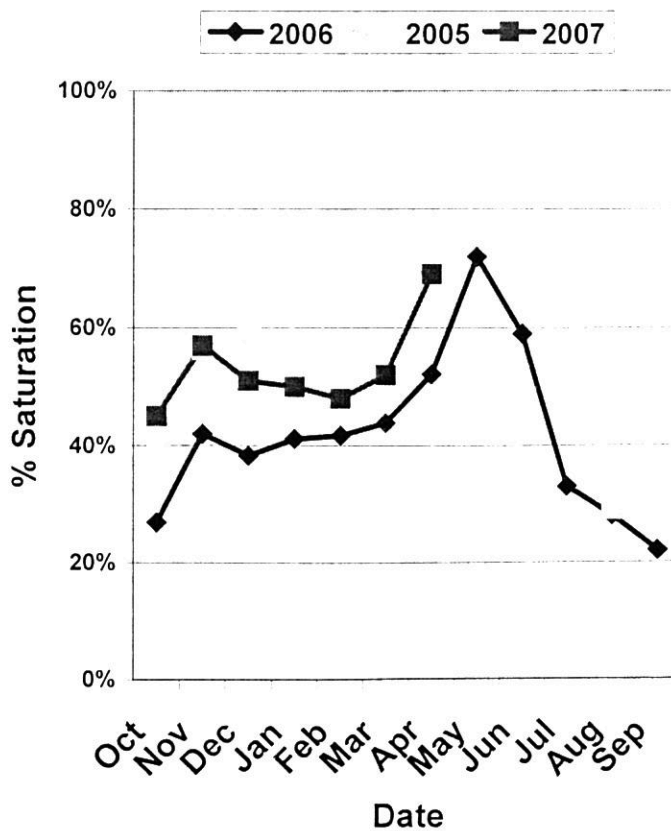
## Sevier/Beaver River Soil Moisture



## Southwest Utah Soil Moisture



## Statewide Soil Moisture



DATA CURRENT AS OF:04/03/07 10:04:06

S N O W C O U R S E D A T A

APRIL 2007

SNOW COURSE	ELEV.	DATE	SNOW DEPTH	WATER CONTENT	LAST YEAR	AVERAGE 71-00
AGUA CANYON SNOTEL	8900	4/01	0	.0	8.8	7.1
ALTA CENTRAL	8800	3/30	66	23.7	56.3	37.3
BEAVER DAMS SNOTEL	8000	4/01	2	.4	12.2	10.5
BEAVER DIVIDE SNOTEL	8280	4/01	5	1.1	14.4	10.6
BEN LOMOND PK SNOTEL	8000	4/01	43	18.8	53.2	41.5
BEN LOMOND TR SNOTEL	6000	4/01	3	1.0	26.1	19.5
BEVAN'S CABIN	6450	3/29	23	4.9	11.1	11.6
BIG FLAT SNOTEL	10290	4/01	46	11.9	17.3	19.0
BIRCH CROSSING	8100	3/29	16	2.5	6.7	5.4
BLACK FLAT-U.M. CK S	9400	4/01	6	2.2	10.9	10.3
BLACK'S FORK GS-EF	9340	3/30	16	4.2	10.1	9.7
BLACK'S FORK JUNCTN	8930	3/30	16	4.6	10.3	9.3
BOX CREEK SNOTEL	9800	4/01	19	7.4	14.0	13.7
BRIAN HEAD	10000	3/29	44	11.9	17.2	21.1
BRIGHTON SNOTEL	8750	4/01	39	14.2	33.7	25.4
BRIGHTON CABIN	8700	3/29	52	15.9	36.2	27.8
BROWN DUCK SNOTEL	10600	4/01	52	13.9	23.1	18.2
BRYCE CANYON	8000	3/29	0	0.0	4.6	3.8
BUCK FLAT SNOTEL	9800	4/01	21	8.0	23.9	18.7
BUCK PASTURE	9700	3/30	38	11.5	20.2	16.9
BUCKBOARD FLAT	9000	3/23	17	5.4	9.2	12.4
BUG LAKE SNOTEL	7950	4/01	43	13.3	25.6	21.2
BURT'S-MILLER RANCH	7900	3/30	0	0.0	6.0	4.9
CAMP JACKSON SNOTEL	8600	4/01	1	.3	8.1	13.6
CASCADE MOUNTAIN SNO	7770	4/01	33	10.2	23.0	-
CASTLE VALLEY SNOTEL	9580	4/01	20	6.3	15.5	14.6
CHALK CK #1 SNOTEL	9100	4/01	50	19.0	29.7	24.9
CHALK CK #2 SNOTEL	8200	4/01	39	13.8	16.7	16.2
CHALK CREEK #3	7500	3/30	4	1.0	8.4	6.9
CHEPETA SNOTEL	10300	4/01	36	12.8	15.7	14.2
CLAYTON SPRINGS SNTL	10000	4/01	14	6.8	12.8	-
CLEAR CK RIDG #1 SNT	9200	4/01	26	8.1	24.3	19.7
CLEAR CK RIDG #2 SNT	8000	4/01	28	8.1	17.6	14.7
CORRAL	8200	3/30	4	0.5	5.5	9.0
CURRENT CREEK SNOTEL	8000	4/01	-	.0	14.4	10.2
DANIELS-STRAWBERRY S	8000	4/01	17	5.2	24.7	16.7
DILL'S CAMP SNOTEL	9200	4/01	13	4.0	19.1	14.9
DONKEY RESERVOIR SNO	9800	4/01	30	8.5	6.0	8.7
DRY BREAD POND SNTL	8350	4/01	33	10.3	25.6	22.6
DRY FORK SNOTEL	7160	4/01	28	9.6	17.7	18.2
EAST WILLOW CREEK SN	8250	4/01	4	.7	4.1	8.3
FARMINGTON U. SNOTEL	8000	4/01	67	20.9	53.2	34.3
FARMINGTON L. SNOTEL	6780	4/01	20	6.6	28.7	-
FARNSWORTH LK SNOTEL	9600	4/01	59	17.3	18.1	19.6
FISH LAKE	8700	3/30	4	0.4	6.8	8.8
FIVE POINTS LAKE SNO	10920	4/01	36	12.0	22.5	17.7
G.B.R.C. HEADQUARTER	8700	3/30	26	7.3	18.5	16.6
G.B.R.C. MEADOWS	10000	3/30	48	13.9	29.2	24.0
GARDEN CITY SUMMIT	7600	3/29	36	9.4	19.9	16.2
GARDNER PEAK SNOTEL	8350	4/01	17	6.0	12.3	-
GEORGE CREEK	8840	3/29	45	13.6	27.2	22.3
GOOSEBERRY R.S.	8400	3/30	23	6.9	11.1	12.0
GOOSEBERRY R.S. SNTL	7900	4/01	-	.0	8.5	8.7
GUTZ PEAK SNOTEL	6820	4/01	0	0.0	3.6	-
HARDSCRABBLE SNOTEL	7250	4/01	23	7.9	30.9	20.2
HARRIS FLAT SNOTEL	7700	4/01	0	0.0	2.8	6.7
HAYDEN FORK SNOTEL	9100	4/01	18	5.9	21.9	16.6
HENRY'S FORK	10000	3/30	39	11.7	17.3	14.0
HEWINTA SNOTEL	9500	4/01	20	6.8	13.1	12.1
HICKERSON PARK SNTL	9100	4/01	27	6.0	5.6	7.7
HIDDEN SPRINGS	5500	3/27	0	0.0	7.2	2.4
HOBBLE CREEK SUMMIT	7420	3/30	18	5.1	18.5	13.9
HOLE-IN-ROCK SNOTEL	9150	4/01	22	7.0	7.8	7.2
HORSE RIDGE SNOTEL	8260	4/01	33	11.6	29.5	23.9
HUNTINGTON-HORSESHOE	9800	3/30	39	12.1	28.8	24.0
INDIAN CANYON SNOTEL	9100	4/01	12	5.0	12.8	11.9
JOHNSON VALLEY	8850	3/30	2	0.2	8.4	7.1
JONES CORRAL G.S.	9720	3/30	37	9.1	9.0	12.5



SNOW COURSE	ELEV.	DATE	SNOW DEPTH	WATER CONTENT	LAST YEAR	AVERAGE 71-00
KILFOIL CREEK	7300	3/29	33	8.6	18.7	14.4
KILLYON CANYON	6300	3/30	0	0.0	10.3	5.6
KIMBERLY MINE SNOTEL	9300	4/01	24	8.6	15.9	16.7
KING'S CABIN SNOTEL	8730	4/01	13	3.0	9.8	11.3
KLONDIKE NARROWS	7400	3/29	25	8.5	27.4	19.2
KOLOB SNOTEL	9250	4/01	25	8.3	20.8	23.9
LAKEFORK #1 SNOTEL	10100	4/01	28	8.7	13.2	12.7
LAKEFORK BASIN SNTL	10900	4/01	49	11.3	24.9	20.7
LAKEFORK MOUNTAIN #3	8400	3/30	3	0.4	7.6	6.0
LAMBS CANYON	7400	3/29	28	8.1	22.5	16.1
LASAL MOUNTAIN LOWER	8800	3/27	3	1.2	7.8	9.8
LASAL MOUNTAIN SNTL	9850	4/01	14	4.3	11.7	13.5
LIGHTNING RIDGE SNTL	8220	4/01	29	10.3	24.7	-
LILY LAKE SNOTEL	9050	4/01	30	10.2	15.5	13.5
LITTLE BEAR LOWER	6000	3/29	9	1.2	14.0	9.5
LITTLE BEAR SNOTEL	6550	4/01	2	1.0	13.8	12.3
LITTLE GRASSY SNOTEL	6100	4/01	-	.0	.0	.7
LONG FLAT SNOTEL	8000	4/01	-	.0	4.9	7.5
LONG VALLEY JCT. SNT	7500	4/01	0	0.0	.9	3.2
LOOKOUT PEAK SNOTEL	8200	4/01	52	19.4	41.7	24.3
LOST CREEK RESERVOIR	6130	3/29	0	0.0	6.1	2.0
LOUIS MEADOW SNOTEL	6700	4/01	8	5.1	28.1	-
MAMMOTH-COTTONWD SNT	8800	4/01	22	7.6	23.1	21.0
MERCHANT VALLEY SNTL	8750	4/01	21	6.6	13.6	13.4
MIDDLE CANYON	7000	3/29	15	3.2	14.7	14.0
MIDWAY VALLEY SNOTEL	9800	4/01	40	13.9	25.0	25.3
MILL CREEK	6950	3/29	46	12.5	24.5	20.6
MILL-D NORTH SNOTEL	8960	4/01	39	12.0	35.9	25.5
MILL-D SOUTH FORK	7400	3/29	30	7.9	27.0	19.1
MINING FORK SNOTEL	8000	4/01	34	12.2	26.5	21.0
MONTE CRISTO SNOTEL	8960	4/01	53	18.9	36.5	30.1
MOSBY MTN. SNOTEL	9500	4/01	28	8.4	13.6	12.1
MT. BALDY R.S.	9500	3/30	51	14.3	27.4	24.1
MUD CREEK #2	8600	3/30	33	8.2	20.0	13.5
OAK CREEK	7760	3/30	31	7.8	13.0	12.0
PANGUITCH LAKE R.S.	8200	3/27	0	0.0	3.1	4.0
PARLEY'S CANYON SNTL	7500	4/01	18	6.1	22.7	17.1
PARRISH CREEK SNOTEL	7740	4/01	47	16.8	34.2	-
PAYSON R.S. SNOTEL	8050	4/01	11	3.2	20.9	20.6
PICKLE KEG SNOTEL	9600	4/01	22	7.0	22.4	17.9
PINE CREEK SNOTEL	8800	4/01	38	11.8	21.4	24.8
RED PINE RIDGE SNTL	9200	4/01	15	6.6	23.1	17.3
REDDEN MINE LOWER	8500	3/29	27	9.0	21.1	17.8
REES'S FLAT	7300	3/30	15	4.2	12.9	12.6
ROCK CREEK SNOTEL	7900	4/01	6	1.7	12.2	8.1
ROCKY BN-SETTLEMT SN	8900	4/01	35	13.4	26.0	26.5
SEELEY CREEK SNOTEL	10000	4/01	16	5.7	16.4	15.3
SMITH MOREHOUSE SNTL	7600	4/01	25	8.3	16.6	14.0
SNOWBIRD SNOTEL	9700	4/01	66	25.8	58.5	35.8
SPIRIT LAKE	10300	3/30	47	11.4	11.7	13.8
SQUAW SPRINGS	9300	3/30	4	0.4	8.6	7.1
STEEL CREEK PARK SNO	10100	4/01	40	12.3	16.0	15.9
STILLWATER CAMP	8550	3/30	17	5.2	10.4	10.5
STRAWBERRY DIVIDE SN	8400	4/01	25	8.6	23.7	18.7
SUSC RANCH	8200	3/27	0	0.0	5.7	7.0
TALL POLES	8800	3/29	37	8.1	12.5	14.7
TEMPLE FORK SNOTEL	7410	4/01	36	10.2	23.4	-
THAYNES CANYON SNTL	9200	4/01	48	16.9	33.3	24.9
THISTLE FLAT	8500	3/30	31	9.8	19.8	16.9
TIMBERLINE	9100	3/30	10	2.2	8.2	14.7
TIMPANOGOS DIVIDE SN	8140	4/01	33	10.3	26.3	24.0
TONY GROVE LK SNOTEL	8400	4/01	56	23.1	56.0	37.7
TONY GROVE R.S.	6250	3/29	7	1.8	15.7	11.1
TRIAL LAKE	9960	3/29	59	17.0	30.1	24.2
TRIAL LAKE SNOTEL	9960	4/01	44	16.3	30.6	25.3
TROUT CREEK SNOTEL	9400	4/01	22	7.2	10.2	11.2
UPPER JOES VALLEY	8900	3/30	7	1.3	13.6	9.9
VERNON CREEK SNOTEL	7500	4/01	13	3.2	11.9	11.7
VIPONT	7670	3/29	28	6.8	22.4	15.4
WEBSTER FLAT SNOTEL	9200	4/01	1	.8	18.6	15.9
WHITE RIVER #1 SNTL	8550	4/01	13	4.7	13.0	13.5
WHITE RIVER #3	7400	3/30	0	0.0	11.6	6.1
WIDTSONE #3 SNOTEL	9500	4/01	18	7.2	10.0	12.8
WRIGLEY CREEK	9000	3/30	17	3.8	12.6	11.3
YANKEE RESERVOIR	8700	3/29	21	4.0	9.7	10.0



*Issued by*

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YOU MAY OBTAIN THIS PRODUCT AS WELL AS CURRENT SNOW, PRECIPITATION, TEMPERATURE AND SOIL MOISTURE, RESERVOIR, SURFACE WATER SUPPLY INDEX, AND OTHER DATA BY VISITING OUR WEB SITE @:

<http://www.ut.nrcs.usda.gov/snow/>

Snow Survey, NRCS, USDA  
245 North Jimmy Doolittle Road  
Salt Lake City, UT 84116  
(801) 524-5213



# **Utah Water Supply Outlook Report**

Natural Resources Conservation Service  
Salt Lake City, UT





# Utah Water Supply Outlook Report

May 1, 2007



**East Fork of Blacks Fork Snow Course, May of 2007. First time ever this site has had no snow on May 1. Photo by Brooke Nelson, NRCS, USDA.**



# Water Supply Outlook Reports

## and Federal - State - Private Cooperative Snow Surveys

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### *How forecasts are made*

Most of the annual streamflow in the western United States originates as snowfall that has accumulated in the mountains during the winter and early spring. As the snowpack accumulates, hydrologists estimate the runoff that will occur when it melts. Measurements of snow water equivalent at selected manual snowcourses and automated SNOTEL sites, along with precipitation, antecedent streamflow, and indices of the El Niño / Southern Oscillation are used in computerized statistical and simulation models to prepare runoff forecasts. These forecasts are coordinated between hydrologists in the Natural Resources Conservation Service and the National Weather Service. Unless otherwise specified, all forecasts are for flows that would occur naturally without any upstream influences.

Forecasts of any kind, of course, are not perfect. Streamflow forecast uncertainty arises from three primary sources: (1) uncertain knowledge of future weather conditions, (2) uncertainty in the forecasting procedure, and (3) errors in the data. The forecast, therefore, must be interpreted not as a single value but rather as a range of values with specific probabilities of occurrence. The middle of the range is expressed by the 50% exceedance probability forecast, for which there is a 50% chance that the actual flow will be above, and a 50% chance that the actual flow will be below, this value. To describe the expected range around this 50% value, four other forecasts are provided, two smaller values (90% and 70% exceedance probability) and two larger values (30%, and 10% exceedance probability). For example, there is a 90% chance that the actual flow will be more than the 90% exceedance probability forecast. The others can be interpreted similarly.

The wider the spread among these values, the more uncertain the forecast. As the season progresses, forecasts become more accurate, primarily because a greater portion of the future weather conditions become known; this is reflected by a narrowing of the range around the 50% exceedance probability forecast. Users should take this uncertainty into consideration when making operational decisions by selecting forecasts corresponding to the level of risk they are willing to assume about the amount of water to be expected. If users anticipate receiving a lesser supply of water, or if they wish to increase their chances of having an adequate supply of water for their operations, they may want to base their decisions on the 90% or 70% exceedance probability forecasts, or something in between. On the other hand, if users are concerned about receiving too much water (for example, threat of flooding), they may want to base their decisions on the 30% or 10% exceedance probability forecasts, or something in between. Regardless of the forecast value users choose for operations, they should be prepared to deal with either more or less water. (Users should remember that even if the 90% exceedance probability forecast is used, there is still a 10% chance of receiving less than this amount.) By using the exceedance probability information, users can easily determine the chances of receiving more or less water.

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# STATE OF UTAH GENERAL OUTLOOK

May 1, 2007

## SUMMARY

April has put an exclamation point on March. As you remember, March was the snowpack equivalent of the Titanic. The only reason that April didn't melt more snow is that there wasn't much snow left to melt. As it is melt ranged from 73% in southwest Utah to 168% of normal for the Uintah Basin. We begin with record or near record low snowpacks in March, accelerate the melt in April and now we are left with snowpacks that range between 3% over southeast Utah to 33% of average on the Bear River. Southern Utah snowpacks are much lower than northern counterparts. With the melting of the snowpack comes the runoff season that can be described, at this point, as lethargic at best. In many cases, low elevation watersheds had little to no response. Many mid elevation watersheds saw moderate rises, have peaked for the season, and are now in recession. Those watersheds with higher elevations are now (early May) in the process of peak flows, nearly a month early and much below average. Optimistically, most watersheds will not be able to sustain significant flows beyond the end of May and most likely not past mid May. Those interests that depend on direct streamflow will be the first and possibly most impacted by what is shaping up to be a long summer. Soil moisture values have peaked and in some cases have started to decline: Bear - 77%, Weber - 75%, Provo - 66%, Uintah Basin - 70%, southeast Utah - 74%, Sevier - 68%, southwest Utah - 59%, and statewide - 70% of saturation. Those watersheds that did increase soil moisture in April did so only slightly and all basins are expected to dry out very quickly. In addition to the obvious impacts of reduced streamflow and dependent on future climatic conditions, Utah might expect an earlier and longer fire season, reduced forage production, agricultural and forest stress and any number of other drought related impacts. Reservoir storage continues to be in good condition although some reservoirs have already begun to decline. Early demand (April!) outpacing inflow with the portent of a long summer is, in general, a red flag. General water supply conditions range from much below to near average. Streamflow forecasts range from 1% in the Monticello area to 60% of average on Little Cottonwood Creek. Surface Water Supply Indices range from 12% on the Weber River to 67% on the west side of the Uintah Basin.

## SNOWPACK

May first snowpacks as measured by the NRCS SNOTEL are as follows: Bear - 33%, Weber - 30%, Provo - 21%, Uintahs - 32%, southeast Utah - 3%, Sevier - 26%, southwest Utah - 15% and the statewide figure is 27% of average. Snowpacks are isothermal at all locations with rapid snowmelt and are not expected to last past mid May. This is about a month earlier than normal.

## PRECIPITATION

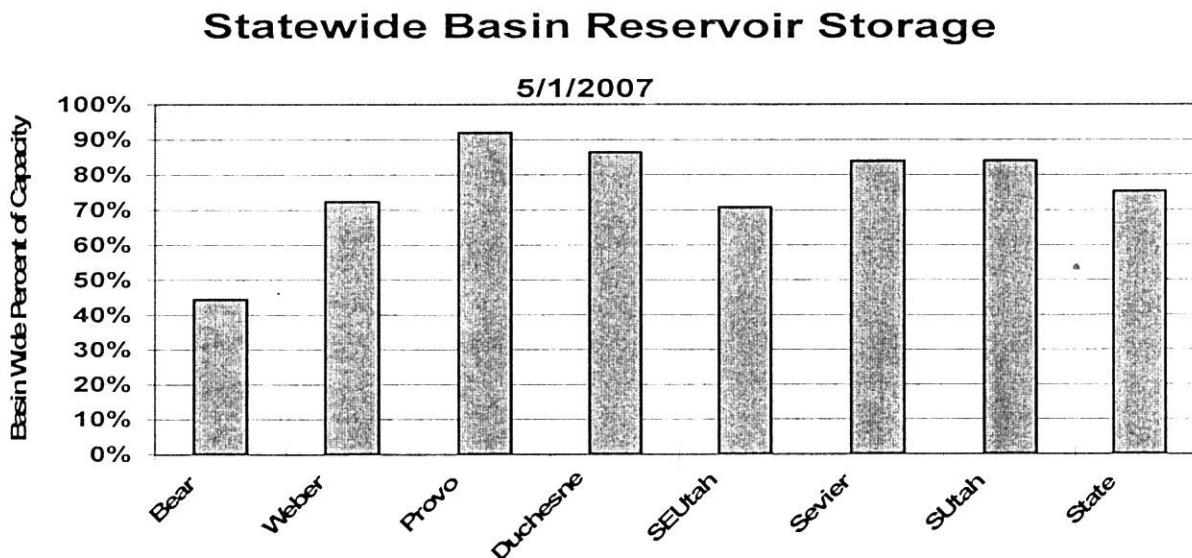
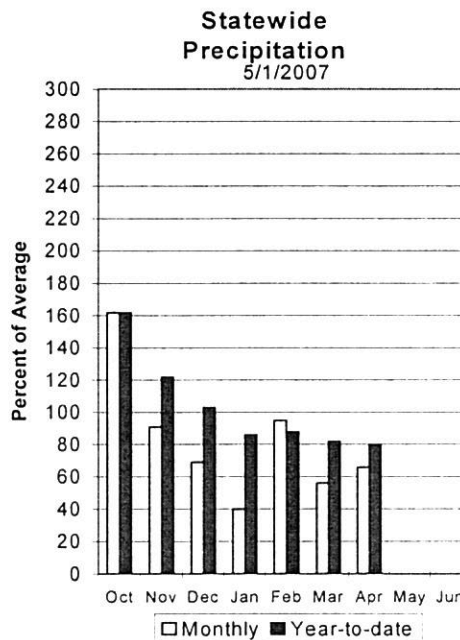
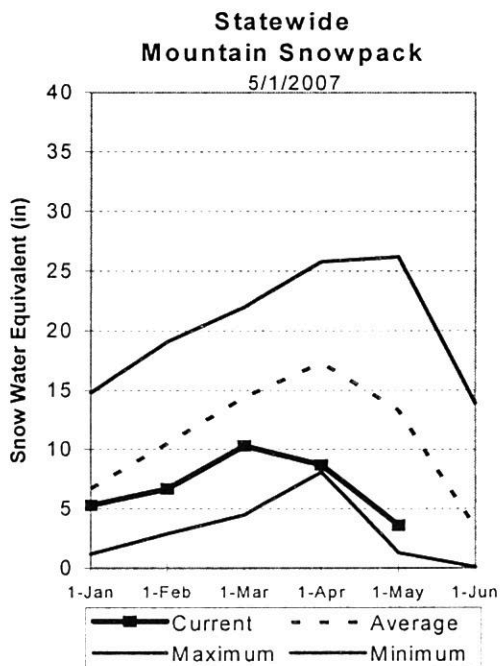
Mountain precipitation during April was much below normal in northern Utah (48%-63%) and below normal across southern Utah (75%-85%). This brings the seasonal accumulation (Oct-Apr) to 80% of average statewide and ranges from 76% on the Provo to 86% over southeastern Utah.

## RESERVOIRS

Storage in 41 of Utah's key irrigation reservoirs is at 75% of capacity up 1% from last month. This is also an increase of 2% from last year. Reservoirs across the State did not increase substantially from last month although most were close to full then and remain so now. There are some such as Willard Bay, Huntington North and the Enterprise reservoirs that have fill restrictions that will limit overall water supplies in those areas.

## STREAMFLOW

Snowmelt streamflows are expected to have a wide range from much below average to near average across the state of Utah this year. Forecast streamflows range from 1% on North Creek near Monticello to 60% of average for Little Cottonwood Creek. Most flows are forecast to be in the 30% to 50% range.





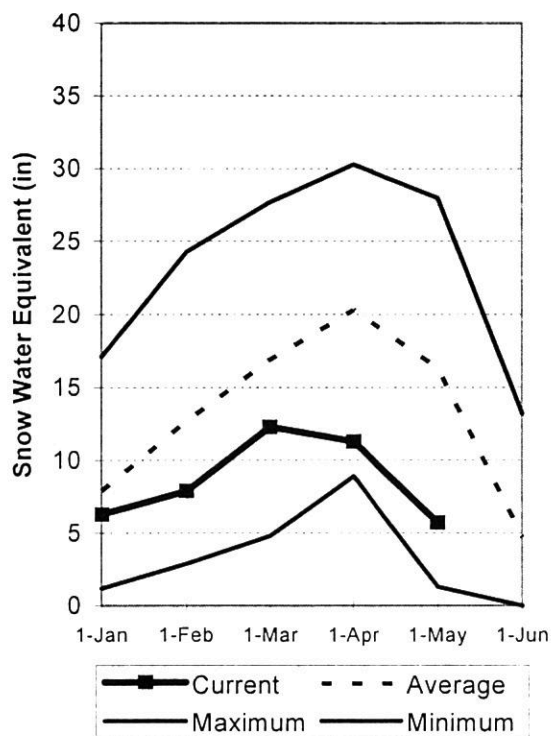
# Bear River Basin

May 1, 2007

Snowpacks on the Bear River Basin are much below average at 33% of normal, about 29% of last year. Specific sites range from 0% to 81% of normal. April precipitation was much below average at 63%, which brings the seasonal accumulation (Oct-April) to 78% of average. Soil moisture levels in runoff producing areas are at 77% of saturation in the upper 2 feet of soil compared to 79% last year. Forecast streamflows are much below average (12%-58%) volumes for this spring. Reservoir storage is low at 42% of capacity, 14% more than last year. The Surface Water Supply Index is at 21% for the Bear River, or 79% of years have had more total water available. Water supply conditions are much below normal due to low streamflow and reservoir storage. Since 1977 only one year, 1992, had worse snowpack conditions.

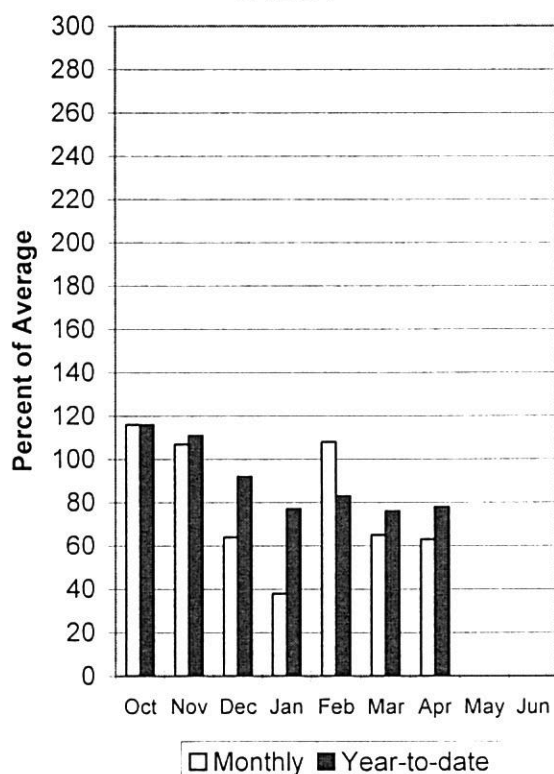
## Bear River Snowpack

5/1/2007



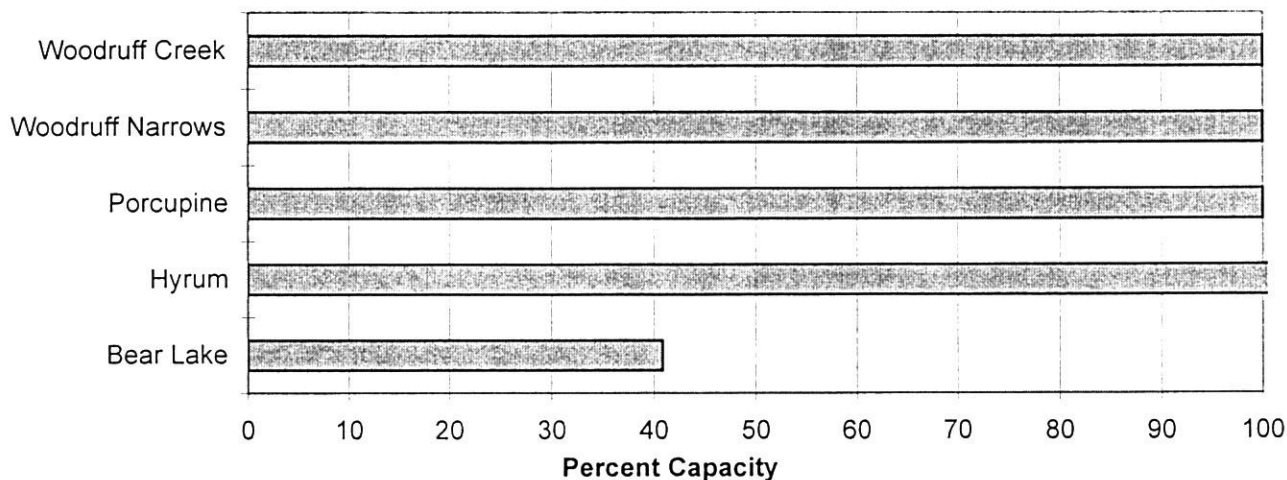
## Bear River Precipitation

5/1/2007



## Reservoir Storage

5/1/2007



BEAR RIVER BASIN  
Streamflow Forecasts - May 1, 2007

		<<==== Drier =====		Future Conditions =====		=====> Wetter =====>>			
Forecast Point	Forecast Period	Chance Of Exceeding *						30-Yr Avg. (1000AF)	
		90% (1000AF)	70% (1000AF)	50% (1000AF)	(% AVG.)	30% (1000AF)	10% (1000AF)		
Bear River nr UT-WY State Line	APR-JUL	54	64	72	64	80	93	113	
	MAY-JUL	44	54	62	58	70	83	107	
Bear River ab Reservoir nr Woodruff	APR-JUL	30	36	52	38	60	73	136	
	MAY-JUL	17.0	24	40	35	48	61	116	
Big Creek nr Randolph	APR-JUL	0.6	1.1	1.6	32	2.2	3.5	4.9	
	MAY-JUL	0.1	0.6	1.1	25	1.7	3.0	4.3	
Smiths Fork nr Border	APR-JUL	44	53	60	58	67	79	103	
	MAY-JUL	35	44	51	54	58	70	95	
Bear River at Stewart Dam	APR-JUL	36	39	51	22	61	89	234	
	MAY-JUL	6.0	9.0	22	12	32	60	186	
Little Bear River at Paradise	APR-JUL	11.1	14.1	16.8	37	20	26	46	
	MAY-JUL	2.8	5.8	8.5	27	11.7	17.3	32	
Logan R Abv State Dam Nr Logan	APR-JUL	30	41	50	40	60	77	126	
	MAY-JUL	16.0	27	36	33	46	63	108	
Blacksmith Fk Abv Up&L Dam Nr Hyrum	APR-JUL	13.1	17.4	21	44	25	31	48	
	MAY-JUL	6.8	11.1	14.6	37	18.6	25	40	

BEAR RIVER BASIN Reservoir Storage (1000 AF) - End of April					BEAR RIVER BASIN Watershed Snowpack Analysis - May 1, 2007			
Reservoir	Usable Capacity	*** Usable Storage ***			Watershed	Number of Data Sites	This Year as % of	
		This Year	Last Year	Avg			Last Yr	Average
BEAR LAKE	1302.0	531.6	391.9	---	BEAR RIVER, UPPER (above	12	43	43
HYRUM	15.3	15.4	11.8	13.2	BEAR RIVER, LOWER (below	13	21	26
PORCUPINE	11.3	11.3	11.3	9.5	LOGAN RIVER	8	23	34
WOODRUFF NARROWS	57.3	57.3	57.3	38.5	BEAR RIVER DRAINAGE	24	27	31
WOODRUFF CREEK	4.0	4.0	4.0	---	RAFT RIVER	1	55	101
					BEAR RIVER BASIN	25	30	35

\* 90%, 70%, 50%, 30%, and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table.

The average is computed for the 1971-2000 base period.

- (1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.  
 (2) - The value is natural volume - actual volume may be affected by upstream water management.

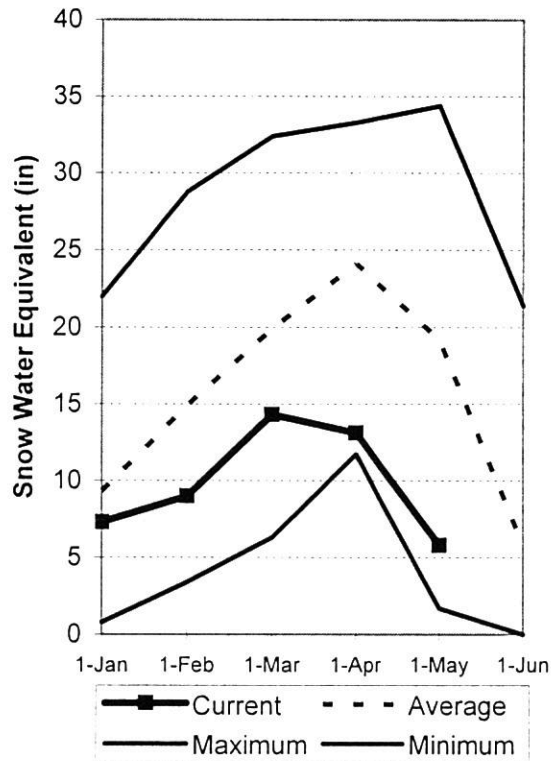
# Weber and Ogden River Basins

May 1, 2007

Snowpacks on the Weber and Ogden Watersheds are much below average at 30%, about 24% of last year. Individual sites range from 0% to 56% of average. April precipitation was much below average at 60% bringing the seasonal accumulation (Oct-April) to 79% of average. Soil moisture levels in runoff producing areas are at 75% of saturation in the upper 2 feet of soil compared to 76% last year. Streamflow forecasts range from 25% to 50% of average. Reservoir storage is at 63% of capacity, 15% lower than last year. The Surface Water Supply Index is at 10% for the Weber River and at 14% for the Ogden River. Overall water supply conditions are much below normal. Only one year since 1971 had worse snowpack conditions, that was in 1977.

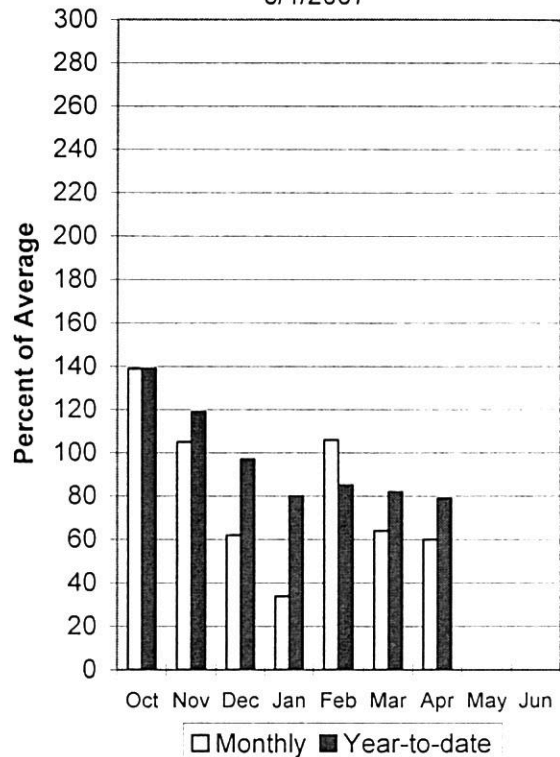
## Weber River Snowpack

5/1/2007



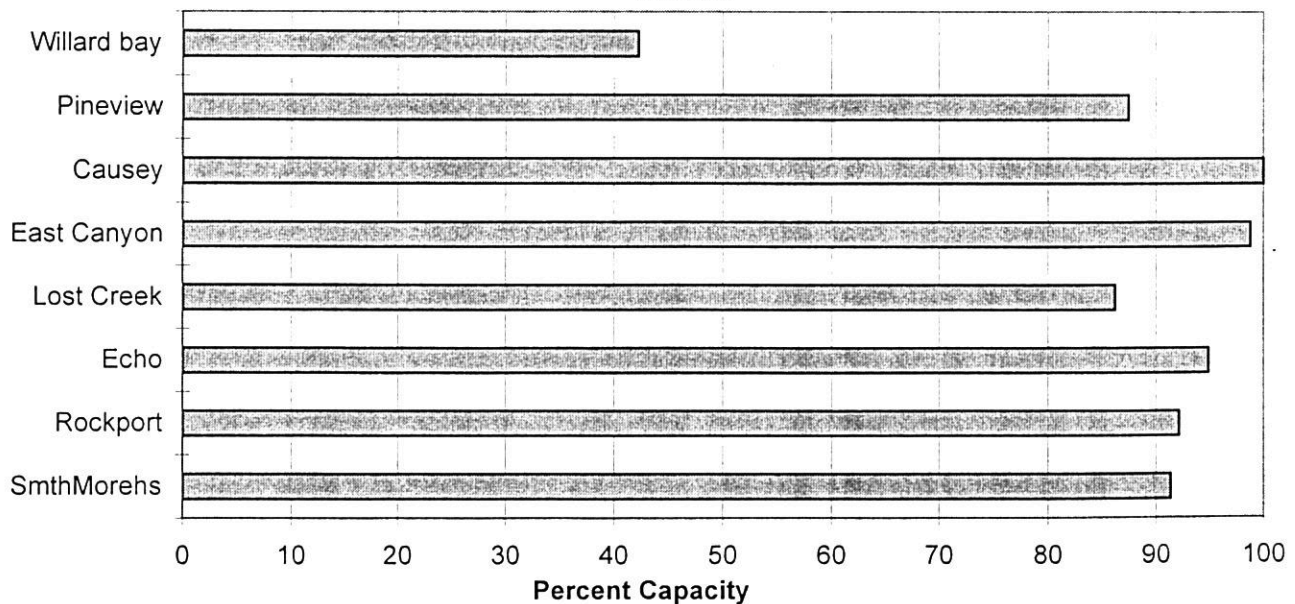
## Weber River Precipitation

5/1/2007



## Reservoir Storage

5/1/2007





WEBER & OGDEN WATERSHEDS in Utah  
Streamflow Forecasts - May 1, 2007

Forecast Point	Forecast Period	<<----- Drier ----- Future Conditions ----- Wetter ----->>						30-Yr Avg. (1000AF)
		Chance Of Exceeding *						
		90% (1000AF)	70% (1000AF)	50% (1000AF)	(% AVG.)	30% (1000AF)	10% (1000AF)	
Smith & Morehouse Res inflow	APR-JUL	12.0	15.7	18.2	54	21	25	34
	MAY-JUL	9.3	13.0	15.5	50	18.0	22	31
Weber River nr Oakley	APR-JUL	42	56	65	53	74	88	123
	MAY-JUL	30	44	53	47	62	76	113
Rockport Resv Inflow Nr Wanship	APR-JUL	30	44	54	40	63	78	134
	MAY-JUL	22	36	46	38	55	70	120
Weber River nr Coalville	APR-JUL	31	44	53	39	64	76	137
	MAY-JUL	22	35	44	39	55	67	114
Chalk Creek at Coalville	APR-JUL	10.7	14.4	17.6	39	21	28	45
	MAY-JUL	4.0	7.7	10.9	30	14.6	21	37
Echo Reservoir inflow	APR-JUL	46	64	77	43	88	107	179
	MAY-JUL	29	47	60	40	71	90	152
Lost Creek Reservoir inflow	APR-JUL	3.2	4.3	5.4	31	6.7	9.0	17.6
	MAY-JUL	1.0	2.1	3.2	25	4.5	6.8	12.9
East Canyon Reservoir inflow	APR-JUL	6.7	9.0	10.9	35	13.1	16.9	31
	MAY-JUL	2.8	5.1	7.0	32	9.2	13.0	22
Weber River at Gateway	APR-JUL	112	127	138	39	149	164	355
	MAY-JUL	65	80	91	33	102	117	273
SF Ogden River nr Huntsville	APR-JUL	17.5	21	25	39	28	34	64
	MAY-JUL	7.3	11.2	14.4	31	18.0	24	47
Pineview Reservoir inflow	APR-JUL	32	41	49	37	58	74	133
	MAY-JUL	11.0	20	28	32	37	53	89
Wheeler Creek nr Huntsville	APR-JUL	1.6	2.2	2.7	43	3.3	4.2	6.3
	MAY-JUL	0.9	1.4	1.9	45	2.5	3.4	4.3

WEBER & OGDEN WATERSHEDS in Utah  
Reservoir Storage (1000 AF) - End of April

WEBER & OGDEN WATERSHEDS in Utah  
Watershed Snowpack Analysis - May 1, 2007

Reservoir	Usable Capacity	*** Usable Storage ***			Watershed	Number of Data Sites	This Year as % of	
		This Year	Last Year	Avg			Last Yr	Average
CAUSEY	7.1	7.1	5.6	4.0	OGDEN RIVER	4	17	22
EAST CANYON	49.5	48.9	42.6	40.5	WEBER RIVER	13	24	34
ECHO	73.9	70.3	52.0	52.9	WEBER & OGDEN WATERSHEDS	17	22	30
LOST CREEK	22.5	19.4	17.1	15.6				
PINEVIEW	110.1	96.3	84.2	77.7				
ROCKPORT	60.9	56.1	34.9	38.6				
WILLARD BAY	215.0	90.8	184.3	168.0				

\* 90%, 70%, 50%, 30%, and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table.

The average is computed for the 1971-2000 base period.

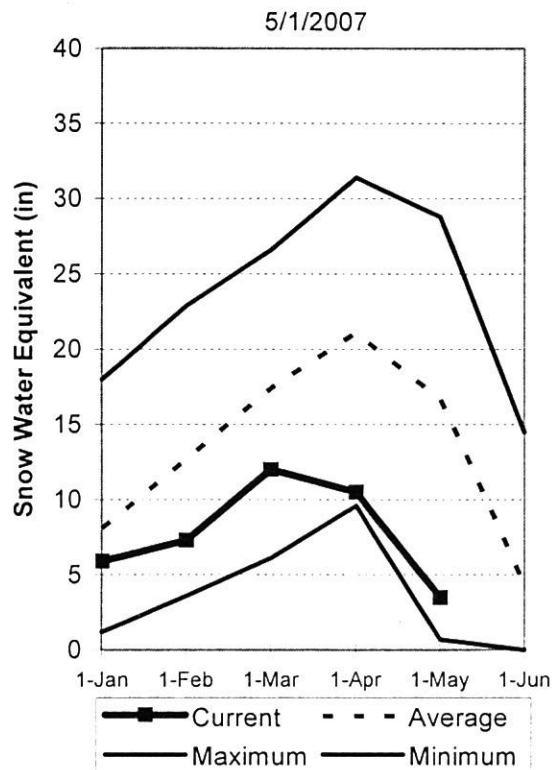
- (1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.  
(2) - The value is natural volume - actual volume may be affected by upstream water management.

# Utah Lake, Jordan River & Tooele Valley Basins

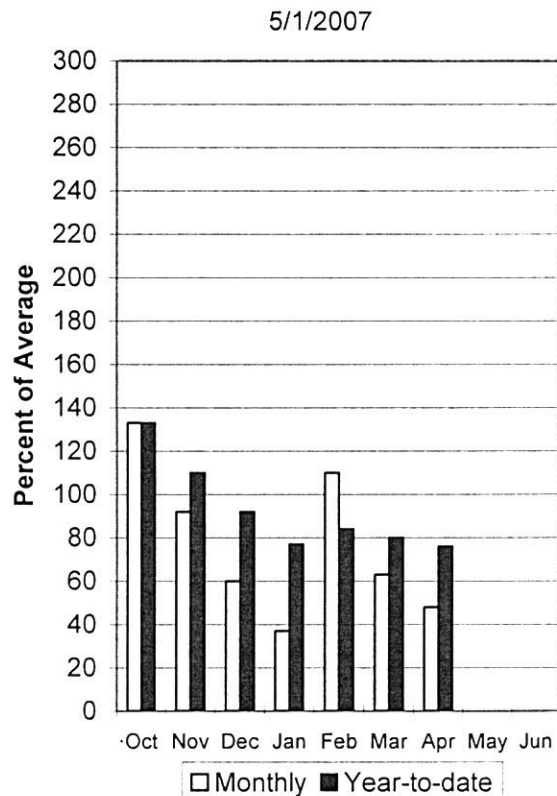
## May 1, 2007

Snowpack over these regions is much below average at 21%, which is 17% of last year and down 29% from last month. This is the lowest May 1 snowpack for this region since 1992. Individual sites range from 0% to 59% of average. April precipitation was much below average at 48%, bringing the seasonal accumulation (Oct-Apr) to 76% of average. Soil moisture levels in runoff producing areas are at 66% of saturation in the upper 2 feet of soil compared to 71% last year. Reservoir storage is at 92% of capacity, 2% higher than last year. Streamflow forecasts range from 20% to 59% of average. The Surface Water Supply Index is at 42%, indicating general water supply conditions are near normal due to good reservoir carryover.

### Provo River Snowpack

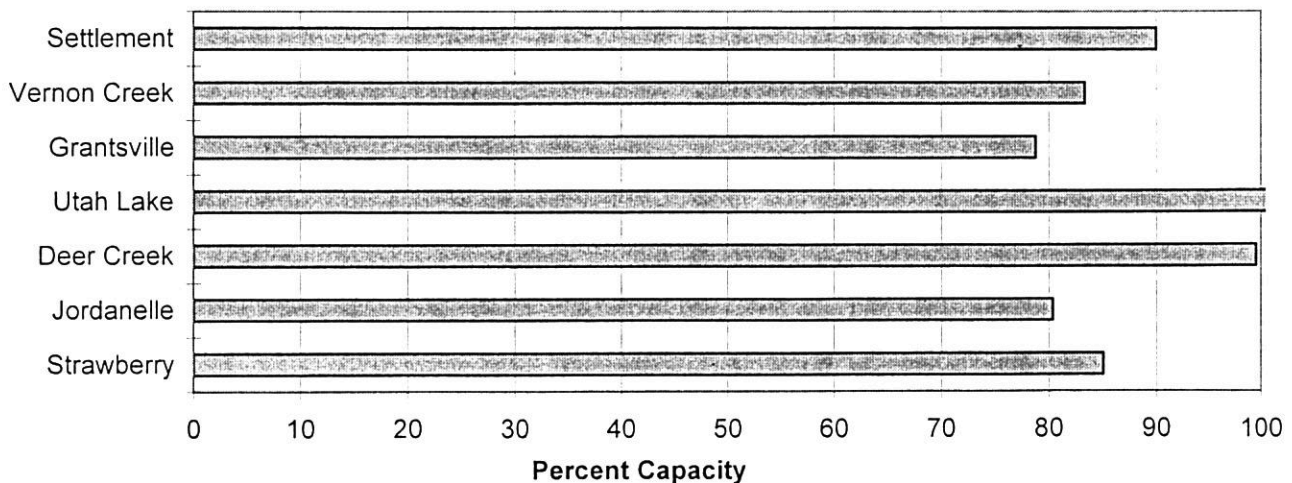


### Provo River Precipitation



### Reservoir Storage

5/1/2007



UTAH LAKE, JORDAN RIVER & TOOELE VALLEY  
Streamflow Forecasts - May 1, 2007

Forecast Point	Forecast Period	<<----- Drier ----- Future Conditions ----- Wetter ----->>						30-Yr Avg. (1000AF)
		90%	70%	Chance Of Exceeding *		30%	10%	
		(1000AF)	(1000AF)	(1000AF)	(% AVG.)	(1000AF)	(1000AF)	
Spanish Fork River nr Castilla	APR-JUL	13.3	22	30	39	40	57	77
	MAY-JUL	5.6	14.1	22	37	32	49	60
Provo River nr Woodland	APR-JUL	45	54	60	58	67	78	103
	MAY-JUL	26	35	41	45	48	59	92
Provo River nr Hailstone	APR-JUL	44	55	61	56	70	82	109
	MAY-JUL	25	36	42	44	51	63	95
Deer Creek Resv Inflow	APR-JUL	43	54	61	48	70	84	126
	MAY-JUL	27	38	45	44	54	68	102
American Fk Abv Upper Powerplant	APR-JUL	18.8	22	24	75	26	30	32
	MAY-JUL	5.8	8.5	10.7	36	13.1	17.2	30
Utah Lake inflow	APR-JUL	112	138	156	48	177	210	325
	MAY-JUL	30	56	74	31	95	130	239
West Canyon Ck Nr Cedar Fort	APR-JUL	0.2	0.3	0.5	19	0.6	0.8	2.4
	MAY-JUL	0.2	0.3	0.4	21	0.6	0.8	2.1
Little Cottonwood Ck nr SLC	APR-JUL	18.1	22	24	60	27	31	40
	MAY-JUL	16.1	19.5	22	60	25	29	37
Big Cottonwood Ck nr SLC	APR-JUL	14.8	18.2	21	55	24	28	38
	MAY-JUL	13.1	16.5	19.0	58	22	26	33
Mill Creek nr SLC	APR-JUL	2.3	3.0	3.6	51	4.3	5.3	7.0
	MAY-JUL	1.0	1.7	2.3	39	3.0	4.0	5.9
Parley's Creek nr SLC	APR-JUL	1.2	2.4	3.5	21	4.9	7.3	16.7
	MAY-JUL	0.9	2.1	3.2	25	4.6	7.0	12.8
Dell Fork nr SLC	APR-JUL	0.7	1.3	1.7	25	2.2	4.2	6.8
	MAY-JUL	0.4	0.9	1.4	28	1.9	2.9	5.0
Emigration Creek nr SLC	APR-JUL	0.2	0.6	0.9	20	1.3	2.1	4.5
	MAY-JUL	0.1	0.4	0.8	25	1.2	2.0	3.1
City Creek nr SLC	APR-JUL	2.2	3.1	3.8	44	4.7	6.1	8.7
	MAY-JUL	1.1	2.0	2.7	37	3.6	5.0	7.3
Vernon Creek nr Vernon	APR-JUL	0.4	0.6	0.7	48	0.9	1.2	1.5
	MAY-JUL	0.2	0.3	0.5	43	0.6	0.9	1.1
Settlement Creek Abv Resv Nr Tooele	APR-JUL	0.1	0.3	0.4	20	0.6	0.9	2.1
	MAY-JUL	0.1	0.2	0.4	20	0.5	0.8	1.8
South Willow Creek nr Grantsville	APR-JUL	1.1	1.4	1.6	50	1.9	2.2	3.2
	MAY-JUL	0.7	1.0	1.2	44	1.5	1.9	2.8

UTAH LAKE, JORDAN RIVER & TOOELE VALLEY  
Reservoir Storage (1000 AF) - End of April

UTAH LAKE, JORDAN RIVER & TOOELE VALLEY  
Watershed Snowpack Analysis - May 1, 2007

Reservoir	Usable Capacity	*** Usable Storage ***			Watershed	Number of Data Sites	This Year as % of	
		This Year	Last Year	Avg			Last Yr	Average
DEER CREEK	149.7	149.0	128.2	119.4	PROVO RIVER & UTAH LAKE	8	12	16
GRANTSVILLE	3.3	2.6	3.3	2.8	PROVO RIVER	4	19	28
SETTLEMENT CREEK	1.0	0.9	0.9	0.7	JORDAN RIVER & GREAT SALT	11	24	37
STRAWBERRY-ENLARGED	1105.9	940.6	848.6	663.7	TOOELE VALLEY WATERSHEDS	5	9	8
UTAH LAKE	870.9	905.6	946.0	872.6	UTAH LAKE, JORDAN RIVER &	24	19	27
VERNON CREEK	0.6	0.5	0.5	---				

\* 90%, 70%, 50%, 30%, and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table.

The average is computed for the 1971-2000 base period.

- (1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.  
(2) - The value is natural volume - actual volume may be affected by upstream water management.

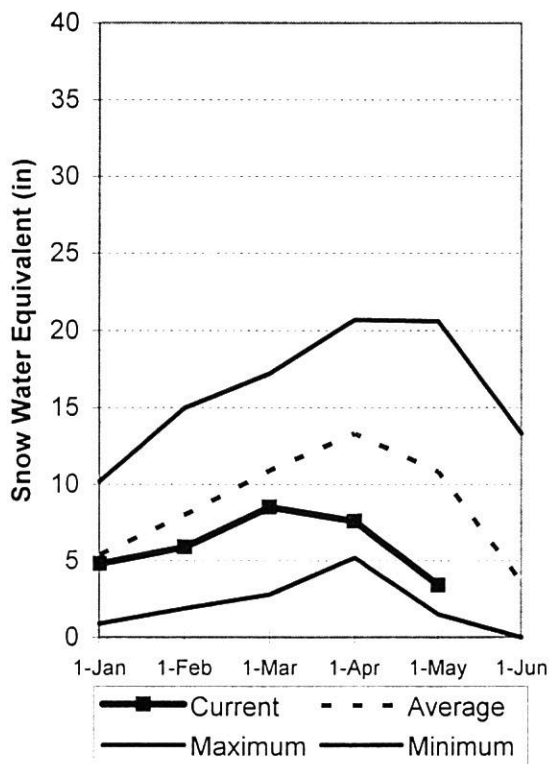


# **Uintah Basin and Dagget SCD's** **May 1, 2007**

Snowpack across the Uintas is much below average at 32%, which is just 38% of last year. This is the worst May 1 snowpack on the Uintas since 2002. Individual sites on the North Slope range from 0% to 84% and on the South Slope range from 0% to 75% of average. East Fork-Blacks Fork G.S. had no snow--a first for the May 1 survey going back to 1961. Precipitation during April was much below average at 61% (the sixth consecutive below normal month) bringing the seasonal accumulation (Oct-Apr) to 81% of average. Soil moisture values in runoff producing areas are at 70% of saturation in the upper 2 feet of soil compared to 75% last year. Reservoir storage is at 86% of capacity, 7% more than last year. Streamflow forecasts (May-July) range from 15% to 62% of average. The Surface Water Supply Index for the western area is 60% and for the eastern area it is 24% indicating normal conditions on the west side and much below normal for the eastern area. General water supply conditions range from average on the west side thanks to excellent reservoir carryover to much below average in the east.

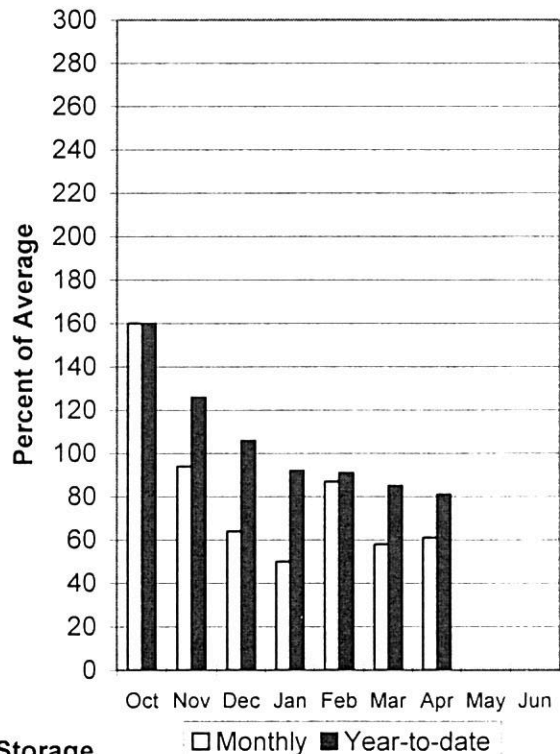
## **Uinta Snowpack**

5/1/2007

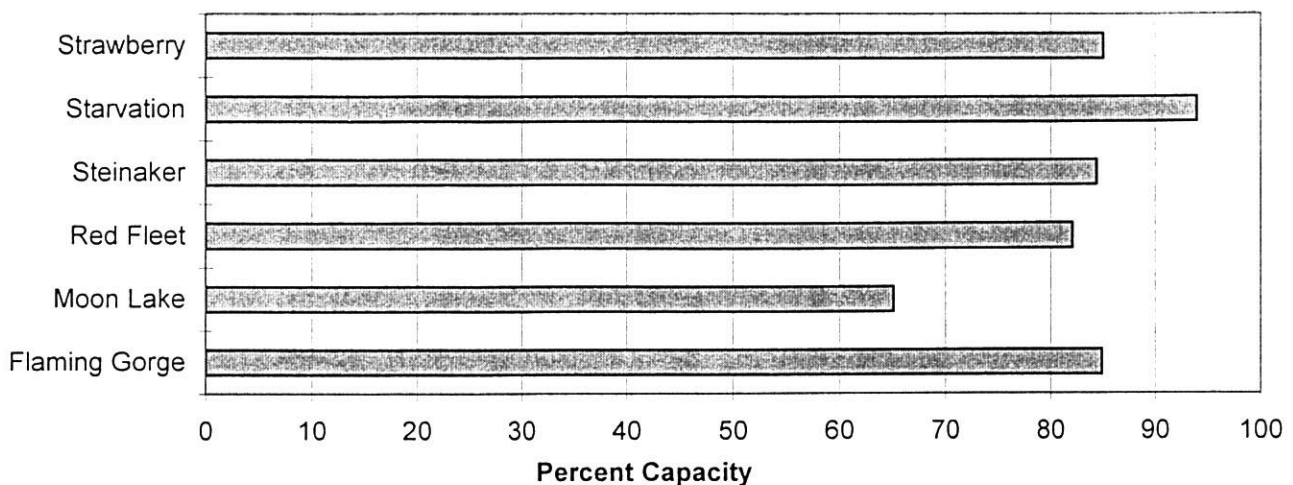


## **Uinta Precipitation**

5/1/2007



## **Reservoir Storage** 5/1/2007



UINTAH BASIN & DAGGET SCD'S  
Streamflow Forecasts - May 1, 2007

Forecast Point	Forecast Period	<<===== Drier ===== Future Conditions ===== Wetter =====>>						
		90%		Chance Of Exceeding *		30%		30-Yr Avg.
		(1000AF)	(1000AF)	(1000AF)	(% AVG.)	(1000AF)	(1000AF)	
Blacks Fork nr Robertson	APR-JUL	43	53	60	63	68	80	95
	MAY-JUL	39	49	56	61	64	76	92
EF of Smiths Fork nr Robertson	APR-JUL	11.1	14.8	17.6	61	20	25	29
	MAY-JUL	10.8	14.5	17.3	62	20	25	28
Flaming Gorge Reservoir Inflow (2)	APR-JUL	285	405	500	42	605	785	1190
	MAY-JUL	215	335	430	42	540	720	1035
Big Brush Ck abv Red Fleet Resv	APR-JUL	9.8	12.0	13.8	66	15.7	18.9	21
	MAY-JUL	5.8	8.0	9.8	52	11.7	14.9	18.8
Ashley Creek nr Vernal	APR-JUL	19.4	25	29	56	34	41	52
	MAY-JUL	16.4	22	26	52	31	38	50
WF Duchesne River nr Hanna (2)	APR-JUL	5.8	8.1	10.0	42	12.1	15.8	24
	MAY-JUL	3.5	5.8	7.7	36	9.8	13.5	22
Duchesne R nr Tabiona (2)	APR-JUL	26	34	40	38	47	57	105
	MAY-JUL	15.6	23	29	30	36	46	96
Upper Stillwater Resv Inflow	APR-JUL	34	40	45	55	50	57	82
	MAY-JUL	30	36	41	52	46	53	79
Rock Ck nr Mountain Home (2)	APR-JUL	38	45	50	56	55	64	89
	MAY-JUL	32	39	44	52	49	58	85
Duchesne R abv Knight Diversion (2)	APR-JUL	61	75	86	46	98	116	188
	MAY-JUL	46	60	71	41	83	101	173
Strawberry R nr Soldier Springs (2)	APR-JUL	6.8	10.5	13.8	23	17.8	25	59
	MAY-JUL	3.0	6.7	10.0	22	14.0	21	46
Currant Creek Reservoir Inflow (2)	APR-JUL	1.6	4.2	6.7	27	9.7	15.2	25
	MAY-JUL	1.6	4.2	6.7	31	9.7	15.2	22
Strawberry R nr Duchesne (2)	APR-JUL	12.0	18.0	24	20	31	45	121
	MAY-JUL	3.0	9.0	15.0	15	22	36	100
Lake Fork River Moon Lake Inflow	APR-JUL	28	34	38	56	42	50	68
	MAY-JUL	27	33	37	57	41	49	65
Yellowstone River nr Altonah	APR-JUL	26	32	36	58	41	48	62
	MAY-JUL	22	28	32	54	37	44	59
Duchesne R at Myton (2)	APR-JUL	33	47	59	23	74	99	260
	MAY-JUL	14.0	28	40	17	55	80	230
Whiterocks near Whiterocks	APR-JUL	24	30	35	63	40	48	56
	MAY-JUL	21	27	32	60	37	45	53
Duchesne R nr Randlett (2)	APR-JUL	28	48	70	22	98	150	324
	MAY-JUL	8.0	28	50	17	78	130	289

UINTAH BASIN & DAGGET SCD'S Reservoir Storage (1000 AF) - End of April					UINTAH BASIN & DAGGET SCD'S Watershed Snowpack Analysis - May 1, 2007			
Reservoir	Usable Capacity	*** Usable Storage ***			Watershed	Number of Data Sites	This Year as % of	
		This Year	Last Year	Avg			Last Yr	Average
FLAMING GORGE	3749.0	3184.0	3033.0	2952.0	UPPER GREEN RIVER in UTAH	11	63	39
MOON LAKE	49.5	32.2	29.0	30.8	ASHLEY CREEK	2	0	0
RED FLEET	25.7	21.1	23.0	19.9	BLACK'S FORK RIVER	3	47	40
STEINAKER	33.4	28.2	33.3	25.0	SHEEP CREEK	2	131	61
STARVATION	165.3	155.3	143.8	139.7	DUCHESNE RIVER	12	34	34
STRAWBERRY-ENLARGED	1105.9	940.6	848.6	663.7	LAKE FORK-YELLOWSTONE CRE	5	44	49
					STRAWBERRY RIVER	4	0	0
					UINTAH-WHITEROCKS RIVERS	2	39	32
					UINTAH BASIN & DAGGET SCD	23	44	36

\* 90%, 70%, 50%, 30%, and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table.

The average is computed for the 1971-2000 base period.

- (1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.  
(2) - The value is natural volume - actual volume may be affected by upstream water management.



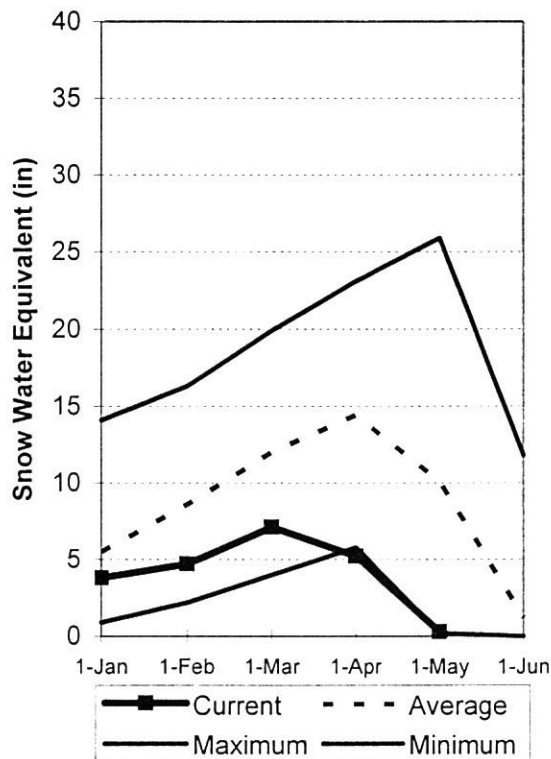
# Carbon, Emery, Wayne, Grand and San Juan Co.

May 1, 2007

Snowpacks in this region are much below normal at 3% of average, about 3% of last year. Individual sites range from 0% to 52% of average. This is the worst May 1<sup>st</sup> snowpack for this region since 1977. Precipitation during April was below average at 75%, bringing the seasonal accumulation (Oct-Apr) to 86% of normal. Soil moisture estimates in runoff producing areas are at 74% of saturation in the upper 2 feet of soil compared to 77% last year and up 1% from last month. Forecast streamflows range from 1% to 68% of average with the lowest flows predicted in the Abajo Mountains. Reservoir storage is at 71% of capacity, up 16% from last year at this time. Surface Water Supply Indices for the area are: Price 20%, San Rafael area 7% and Moab 18%. General runoff and water supply conditions are much below normal.

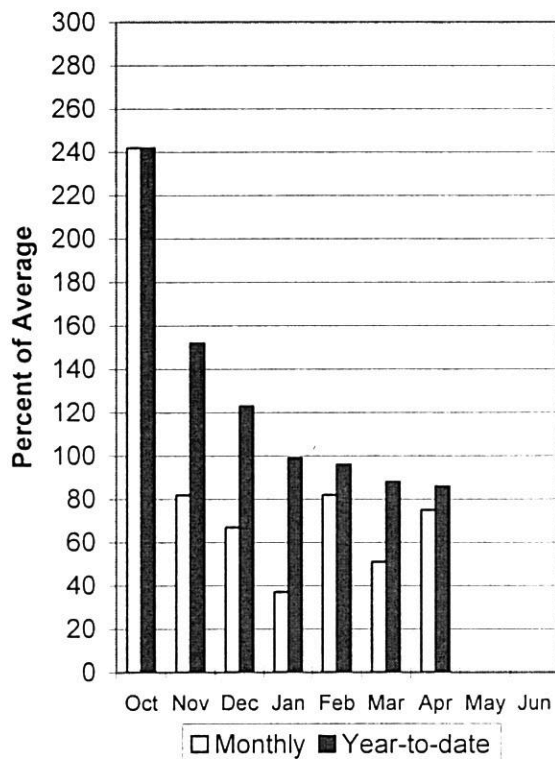
## Southeast Utah Snowpack

5/1/2007



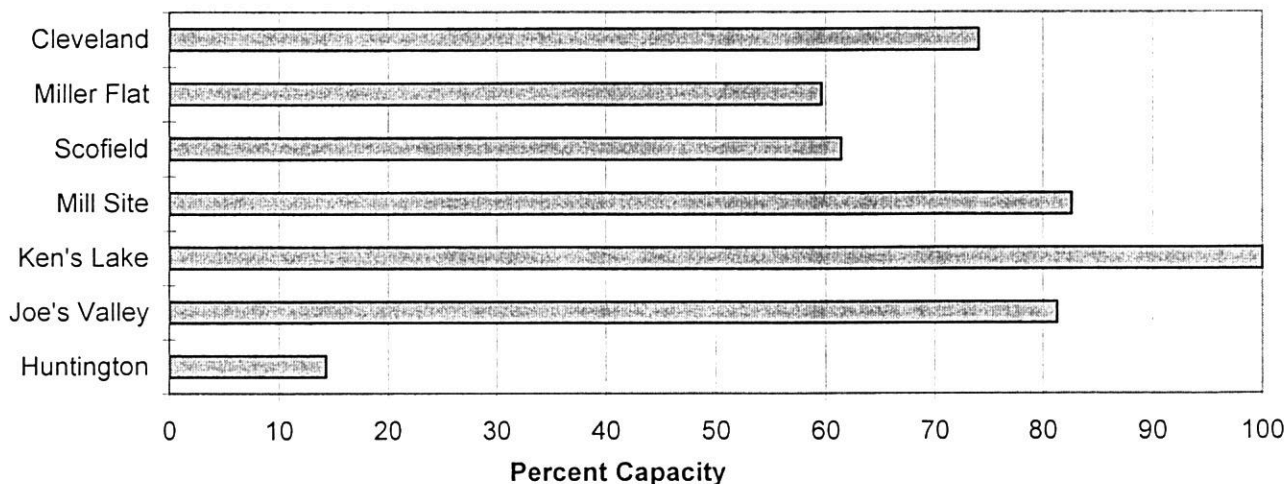
## Southeast Utah Precipitation

5/1/2007



## Reservoir Storage

5/1/2007





CARBON, EMERY, WAYNE, GRAND, & SAN JUAN Co.  
Streamflow Forecasts - May 1, 2007

Forecast Point	Forecast Period	<<===== Drier ===== Future Conditions ===== Wetter =====>>						
		90% (1000AF)	70% (1000AF)	50% (1000AF)	Chance Of Exceeding * (% AVG.)	30% (1000AF)	10% (1000AF)	30-Yr Avg. (1000AF)
Gooseberry Creek nr Scofield	APR-JUL	2.9	3.8	4.5	38	5.3	6.5	11.9
	MAY-JUL	2.2	3.1	3.8	35	4.6	5.8	10.8
Price River near Scofield Reservoir	APR-JUL	-2.5	8.4	15.9	35	23	34	45
	MAY-JUL	-5.4	5.5	13.0	33	20	31	40
White River blw Tabbyune Creek	APR-JUL	1.9	2.6	3.2	19	4.0	5.4	17.3
	MAY-JUL	0.3	1.0	1.6	12	2.4	3.8	13.6
Green River at Green River, UT (2)	APR-JUL	960	1220	1410	45	1590	1860	3170
	MAY-JUL	608	877	1060	39	1243	1512	2740
Huntington Ck Inflow to Electric Lk	APR-JUL	3.6	4.6	5.3	34	6.1	7.5	15.7
	MAY-JUL	2.3	3.3	4.0	29	4.8	6.2	14.0
Huntington Ck nr Huntington	APR-JUL	5.9	8.2	13.7	28	21	33	49
	MAY-JUL	2.2	4.5	10.0	22	17.6	29	45
Joe's Valley Resv Inflow	APR-JUL	15.0	21	25	43	30	38	58
	MAY-JUL	11.9	17.6	22	42	27	35	53
Ferron Ck (Upper Station) nr Ferron	APR-JUL	11.5	14.0	15.8	41	17.8	21	39
	MAY-JUL	7.7	10.2	12.0	33	14.0	17.2	36
Colorado River Near Cisco (2)	APR-JUL	2030	2700	3150	68	3600	4320	4650
	MAY-JUL	1470	2140	2590	64	3040	3760	4080
Mill Creek at Sheley Tunnel nr Moab	APR-JUL	1.5	1.8	2.0	40	2.2	2.6	5.0
	MAY-JUL	1.0	1.3	1.6	36	1.8	2.2	4.3
Seven Mile Ck nr Fish Lake	APR-JUL	2.5	3.0	3.5	50	4.0	4.8	7.0
	MAY-JUL	1.5	2.0	2.5	41	3.0	3.8	6.1
Muddy Creek nr Emery	APR-JUL	6.2	7.8	9.1	46	10.5	12.7	19.9
	MAY-JUL	4.1	5.7	7.0	39	8.4	10.6	18.0
North Ck ab R.S. nr Monticello	MAR-JUL	0.0	0.0	0.0	1	0.0	0.1	0.8
	MAY-JUL	0.0	0.0	0.0	2	0.0	0.1	0.6
South Ck ab Lloyd's Res nr Monticell	MAR-JUL	0.0	0.0	0.1	4	0.1	0.2	1.4
	MAY-JUL	0.0	0.0	0.0	3	0.1	0.1	1.0
Recapture Ck Bl Johnson Ck nr Blandi	MAR-JUL	0.0	0.0	0.1	2	0.2	0.6	5.0
	MAY-JUL	0.0	0.0	0.0	1	0.1	0.3	2.9
San Juan River near Bluff (2)	APR-JUL	375	570	700	57	835	1030	1230
	MAY-JUL	210	410	540	55	670	870	975

CARBON, EMERY, WAYNE, GRAND, & SAN JUAN Co.  
Reservoir Storage (1000 AF) - End of April

CARBON, EMERY, WAYNE, GRAND, & SAN JUAN Co.  
Watershed Snowpack Analysis - May 1, 2007

Reservoir	Usable Capacity	*** Usable Storage ***			Watershed	Number of Data Sites	This Year as % of	
		This Year	Last Year	Avg			Last Yr	Average
HUNTINGTON NORTH	4.2	0.6	4.2	4.1	PRICE RIVER	3	8	12
JOE'S VALLEY	61.6	50.1	42.4	41.9	SAN RAFAEL RIVER	6	14	20
KEN'S LAKE	2.3	2.3	2.3	1.6	MUDDY CREEK	1	0	0
MILL SITE	16.7	13.8	8.8	99.7	FREMONT RIVER	5	11	3
SCOFIELD	65.8	40.4	25.8	37.4	LASAL MOUNTAINS	2	0	0
					BLUE MOUNTAINS	2	0	0
					WILLOW CREEK - WHITE RIVE	1	0	0
					CARBON, EMERY, WAYNE, GRA	20	12	11

\* 90%, 70%, 50%, 30%, and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table.

The average is computed for the 1971-2000 base period.

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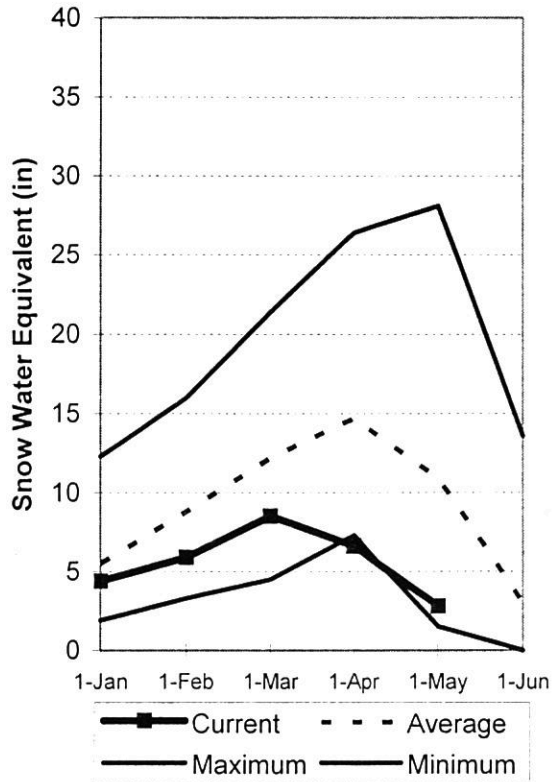
# Sevier and Beaver River Basins

May 1, 2007

Snowpacks on the Sevier River Basin are much below normal at 26% of average, about 34% of last year and down 19% relative to last month. Individual sites range from 0% to 75% of average with 16 of 22 sites at zero. Precipitation during April was below average at 80% of normal, bringing the seasonal accumulation (Oct-Apr) to 82% of average. Soil moisture estimates in runoff producing areas are at 68% of saturation in the upper 2 feet of soil compared to 70% last year. Streamflow forecasts range from 8% to 55% of average. Reservoir storage is at 84% of capacity, 10% less than last year. Surface Water Supply Indices are: Upper Sevier 48%, Lower Sevier 45% and Beaver 25%. Water supply conditions are near to much below average due to reservoir storage but with poor streamflow expected.

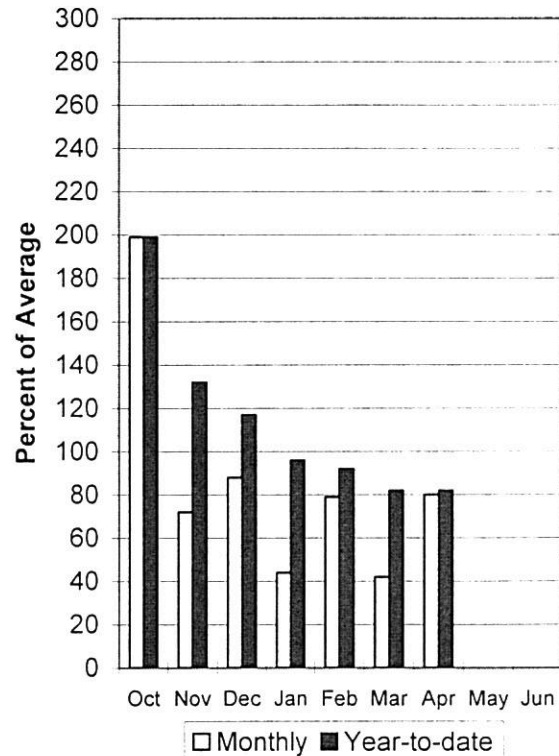
## Sevier River Snowpack

5/1/2007



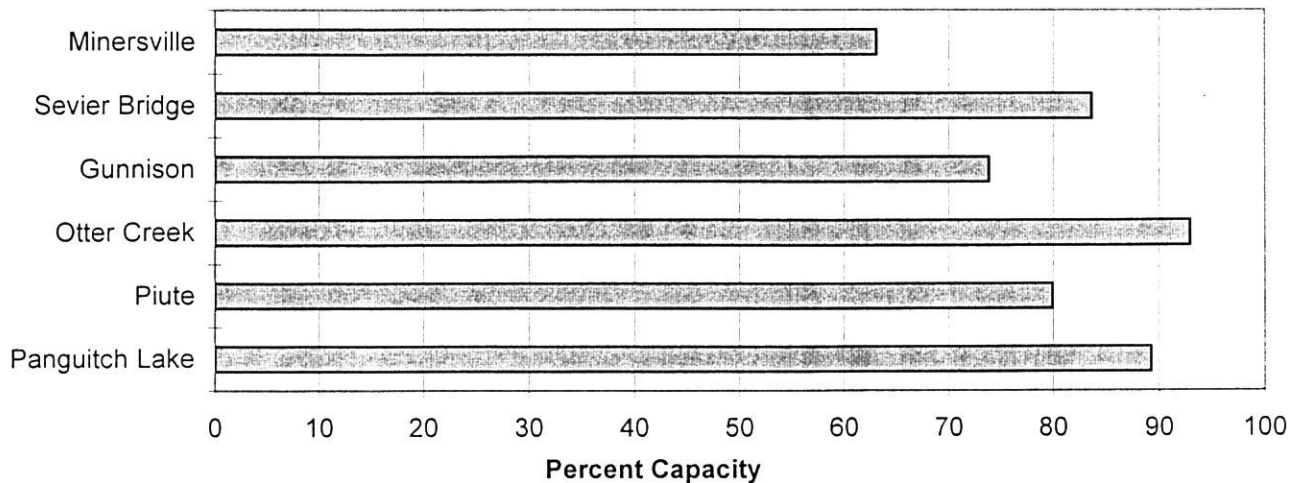
## Sevier River Precipitation

5/1/2007



## Reservoir Storage

5/1/2007



SEVIER & BEAVER RIVER BASINS  
Streamflow Forecasts - May 1, 2007

Forecast Point	Forecast Period	<<----- Drier -----		Future Conditions		----- Wetter ----->>		30-Yr Avg. (1000AF)
		Chance Of Exceeding *						
		90% (1000AF)	70% (1000AF)	50% (1000AF)	(% AVG.)	30% (1000AF)	10% (1000AF)	
Sevier River at Hatch	APR-JUL	19.0	23	25	46	28	32	55
	MAY-JUL	13.6	17.2	19.8	41	23	27	48
Sevier River nr Kingston	APR-JUL	38	45	51	57	57	67	89
	MAY-JUL	28	35	41	55	47	57	74
EF Sevier R nr Kingston	APR-JUL	4.1	9.9	15.2	40	22	33	38
	MAY-JUL	1.7	5.9	10.4	37	16.1	27	28
Sevier R blw Piute Dam	APR-JUL	13.0	29	44	35	62	94	126
	MAY-JUL	6.0	18.0	29	28	43	69	102
Clear Creek Abv Diversions Nr Sevier	APR-JUL	7.4	8.7	9.8	45	11.1	13.3	22
	MAY-JUL	5.6	6.9	8.0	45	9.3	11.5	17.9
Salina Creek at Salina	APR-JUL	1.4	4.0	6.5	33	9.6	15.2	19.7
	MAY-JUL	1.0	3.0	4.9	28	7.4	11.9	17.4
Manti Ck Blw Dugway Ck Nr Manti	APR-JUL	6.0	7.5	8.7	48	10.0	12.0	18.3
	MAY-JUL	4.9	6.4	7.6	44	8.9	10.9	17.1
Sevier R nr Gunnison	APR-JUL	90	108	122	44	136	159	280
	MAY-JUL	54	77	93	41	111	141	227
Chicken Creek nr Levan	APR-JUL	0.0	0.2	0.5	10	0.9	1.8	4.5
	MAY-JUL	0.0	0.1	0.3	8	0.6	1.2	3.4
Oak Creek nr Oak City	APR-JUL	0.2	0.4	0.5	31	0.7	1.0	1.7
	MAY-JUL	0.1	0.2	0.3	25	0.4	0.6	1.1
Beaver River nr Beaver	APR-JUL	7.8	10.3	12.3	46	14.5	18.2	27
	MAY-JUL	5.4	7.9	9.9	41	12.1	15.8	24
Minersville Reservoir inflow	APR-JUL	1.6	2.0	2.4	15	3.4	5.4	16.6
	MAY-JUL	0.7	1.2	1.6	11	2.6	4.6	14.5

SEVIER & BEAVER RIVER BASINS  
Reservoir Storage (1000 AF) - End of April

SEVIER & BEAVER RIVER BASINS  
Watershed Snowpack Analysis - May 1, 2007

Reservoir	Usable Capacity	*** Usable Storage ***			Watershed	Number of Data Sites	This Year as % of	
		This Year	Last Year	Avg			Last Yr	Average
GUNNISON	20.3	15.0	20.3	15.7	UPPER SEVIER RIVER (south	9	37	16
MINERSVILLE (RkyFd)	23.3	14.7	22.2	18.0	EAST FORK SEVIER RIVER	4	39	0
OTTER CREEK	52.5	48.8	50.3	46.0	SOUTH FORK SEVIER RIVER	5	35	26
PIUTE	71.8	57.4	60.5	55.5	LOWER SEVIER RIVER (inclu	11	33	34
SEVIER BRIDGE	236.0	197.4	228.3	183.6	BEAVER RIVER	2	54	50
PANGUITCH LAKE	22.3	19.9	20.8	164.6	SEVIER & BEAVER RIVER BAS	22	36	31

\* 90%, 70%, 50%, 30%, and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table.

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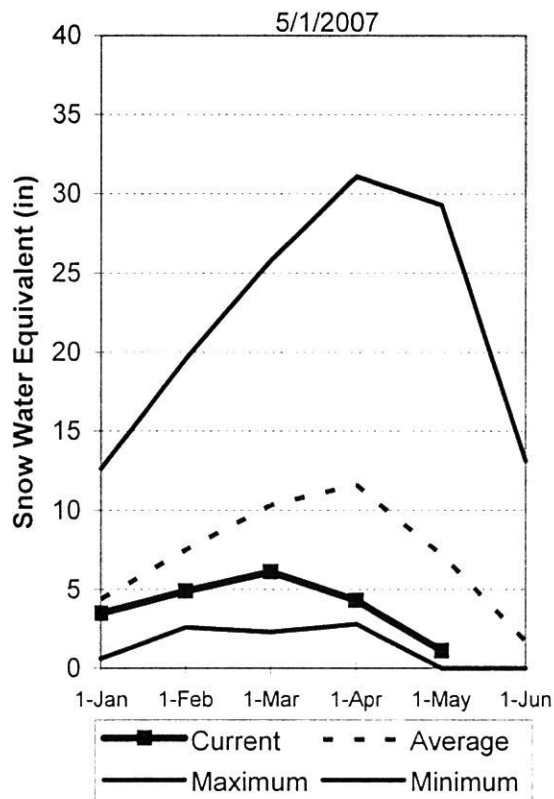


# E. Garfield, Kane, Washington, & Iron Co.

May 1, 2007

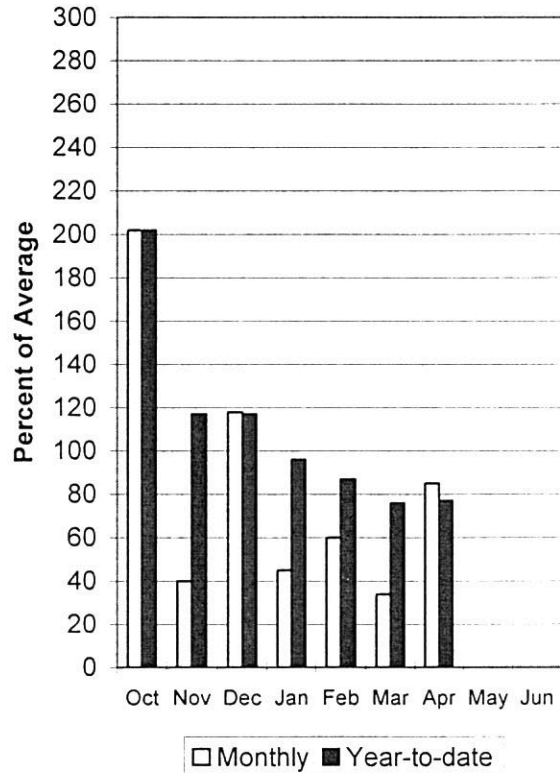
Snowpacks in this region are much below normal at 15% of average, about 23% of last year and down 22% relative to last month. Individual sites range from 0% to 40% of average. Precipitation in the month of April was below average at 85%, bringing the seasonal accumulation (Oct-Apr) to 77% of average. Soil moisture estimates in runoff producing areas are at 62% of saturation in the upper 2 feet of soil compared to 60% last year. Forecast streamflows range from 11% to 35% of average. Reservoir storage is at 84% of capacity, 9% less than last year. The Surface Water Supply Index is at 21%, indicating much below normal water supply conditions.

## Southwest Utah Snowpack



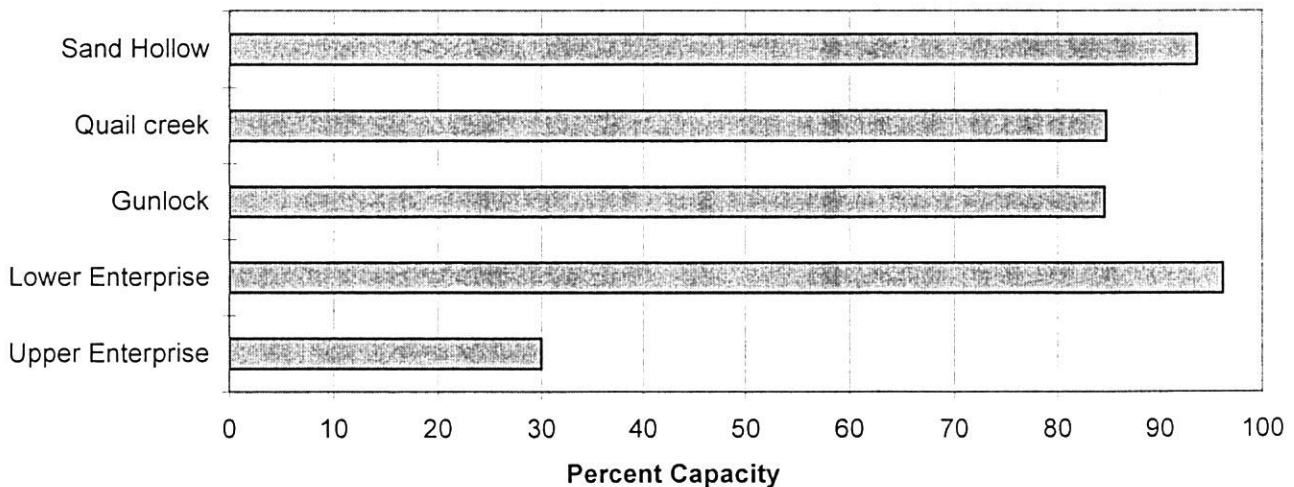
## Southwest Utah Precipitation

5/1/2007



## Reservoir Storage

5/1/2007



E. GARFIELD, KANE, WASHINGTON, & IRON Co.  
Streamflow Forecasts - May 1, 2007

		<<----- Drier ----- Future Conditions ----- Wetter ----->>						
Forecast Point	Forecast Period	Chance Of Exceeding *						30-Yr Avg. (1000AF)
		90% (1000AF)	70% (1000AF)	50% (1000AF)	(% AVG.)	30% (1000AF)	10% (1000AF)	
Lake Powell Inflow (2)	APR-JUL	2560	3420	4000	50	4580	5440	7930
	MAY-JUL	1760	2620	3200	46	3780	4640	6940
Virgin River at Virgin	APR-JUL	18.5	19.5	22	34	25	34	64
	MAY-JUL	11.0	12.0	14.5	35	17.2	27	42
Virgin River near Hurricane	APR-JUL	14.3	15.0	17.5	25	22	25	69
	MAY-JUL	9.3	10.0	12.5	27	17.0	19.7	46
Santa Clara River nr Pine Valley	APR-JUL	0.6	0.7	0.8	15	1.1	1.6	5.5
	MAY-JUL	0.3	0.4	0.5	11	0.7	1.3	4.5
Coal Creek nr Cedar City	APR-JUL	5.5	7.0	8.2	43	9.5	11.7	19.3
	MAY-JUL	3.0	4.5	5.7	36	7.0	9.2	15.9

E. GARFIELD, KANE, WASHINGTON, & IRON Co.  
Reservoir Storage (1000 AF) - End of April

E. GARFIELD, KANE, WASHINGTON, & IRON Co.  
Watershed Snowpack Analysis - May 1, 2007

Reservoir	Usable Capacity	*** Usable Storage ***			Watershed	Number of Data Sites	This Year as % of	
		This Year	Last Year	Avg			Last Yr	Average
GUNLOCK	10.4	8.8	10.4	4.3	VIRGIN RIVER	5	22	18
LAKE POWELL	24322.0	11767.0	10993.0	---	PAROWAN	2	35	29
QUAIL CREEK	40.0	33.9	37.8	31.6	ENTERPRISE TO NEW HARMONY	2	0	0
UPPER ENTERPRISE	10.0	3.0	10.0	---	COAL CREEK	2	35	30
LOWER ENTERPRISE	2.6	2.5	2.4	115.5	ESCALANTE RIVER	2	18	7
					E. GARFIELD, KANE, WASHIN	9	21	15

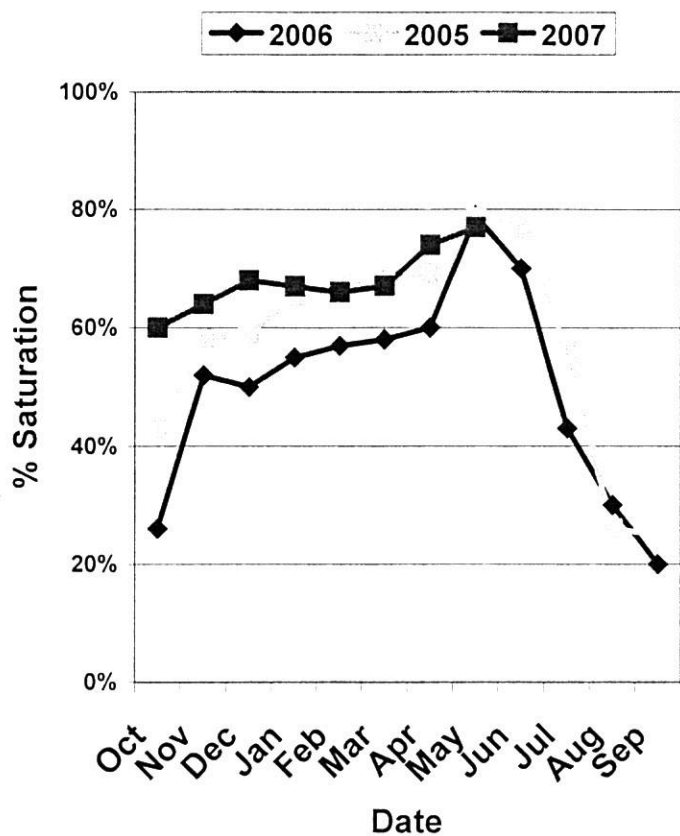
\* 90%, 70%, 50%, 30%, and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table.

The average is computed for the 1971-2000 base period.

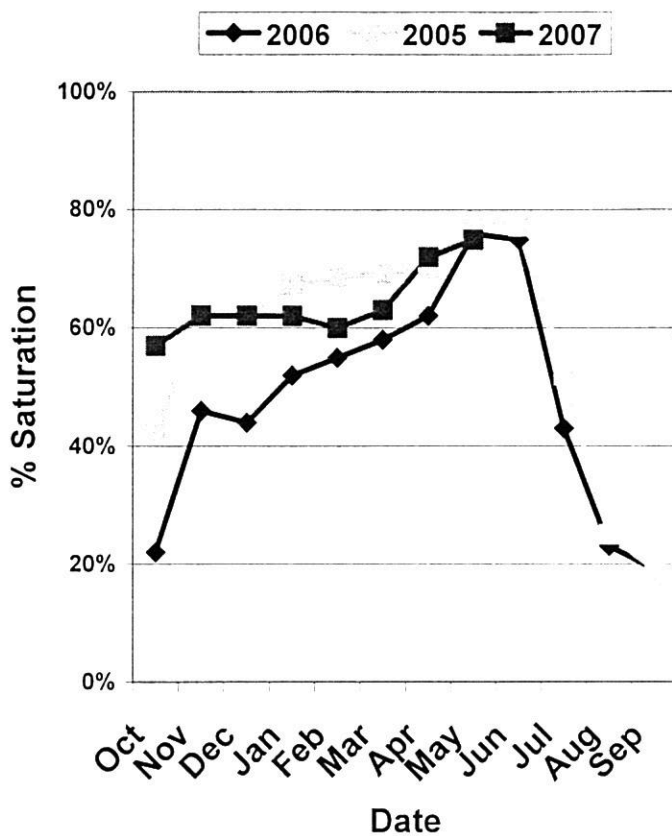
- (1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.  
 (2) - The value is natural volume - actual volume may be affected by upstream water management.

# Watershed Soil Moisture Charts for Utah Water Supply

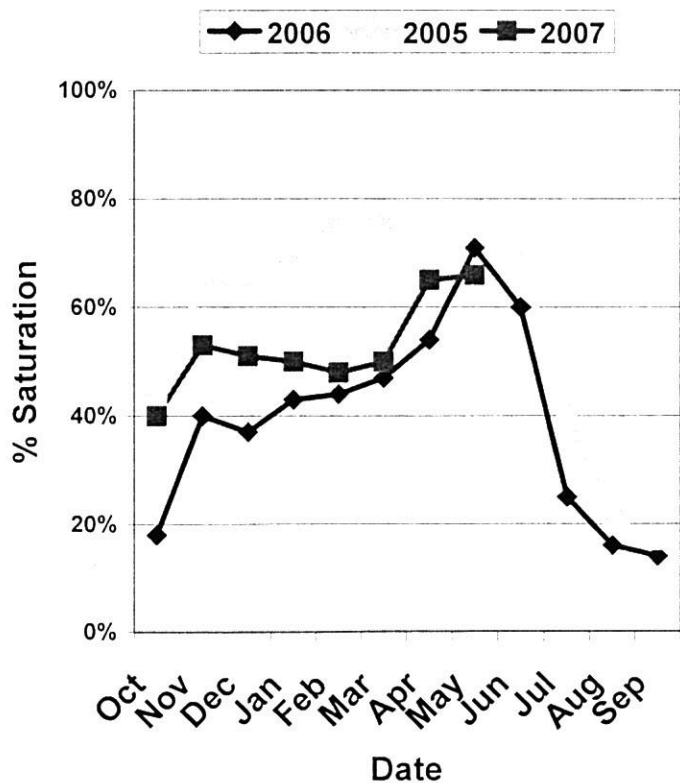
## Bear River Soil Moisture



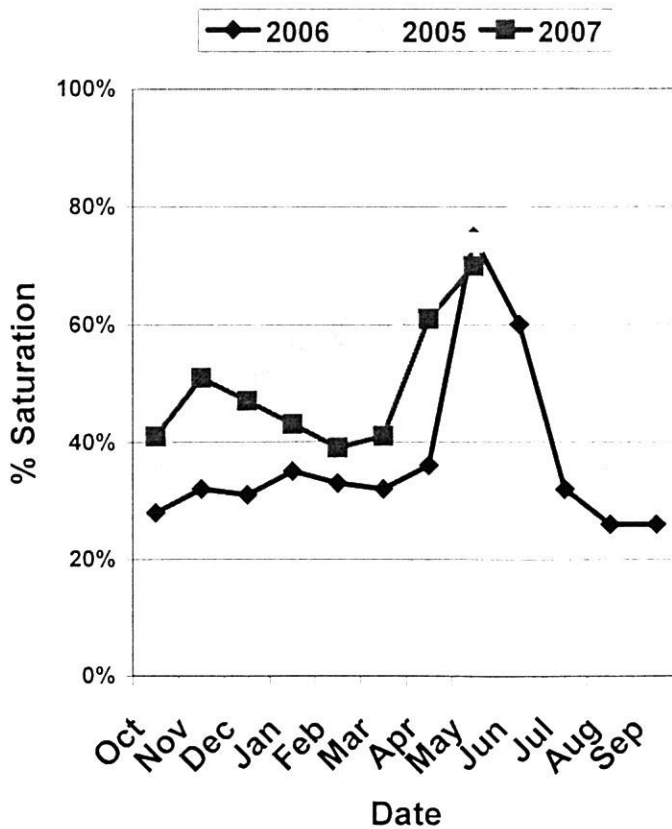
## Weber River Soil Moisture



## Jordan/Provo River Soil Moisture



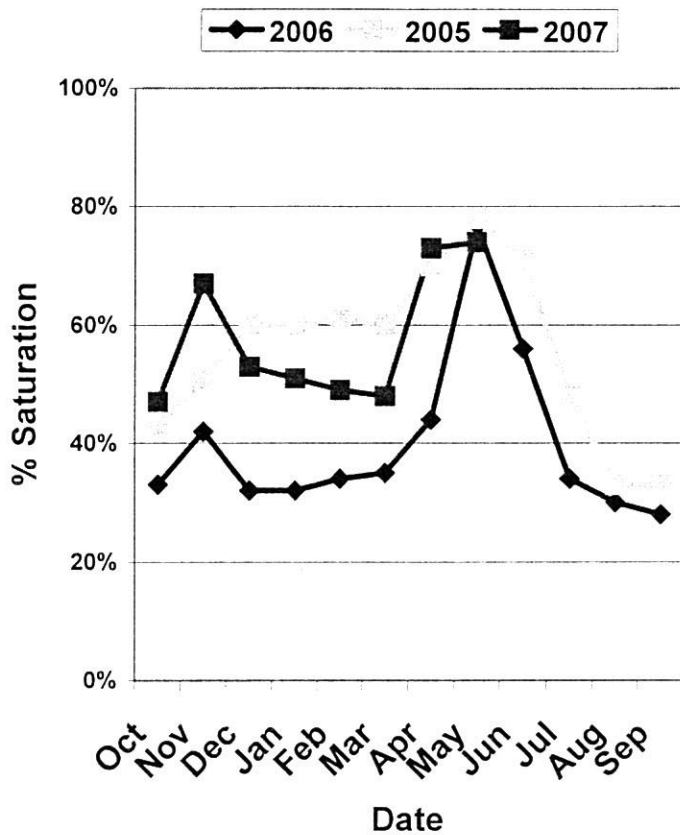
## Uintah Basin Soil Moisture



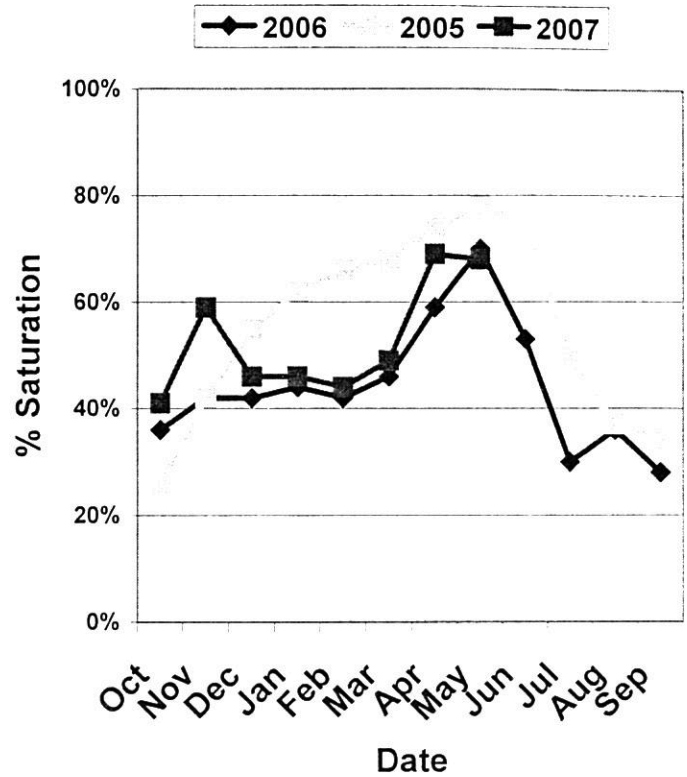


# Watershed Soil Moisture Charts for Utah Water Supply

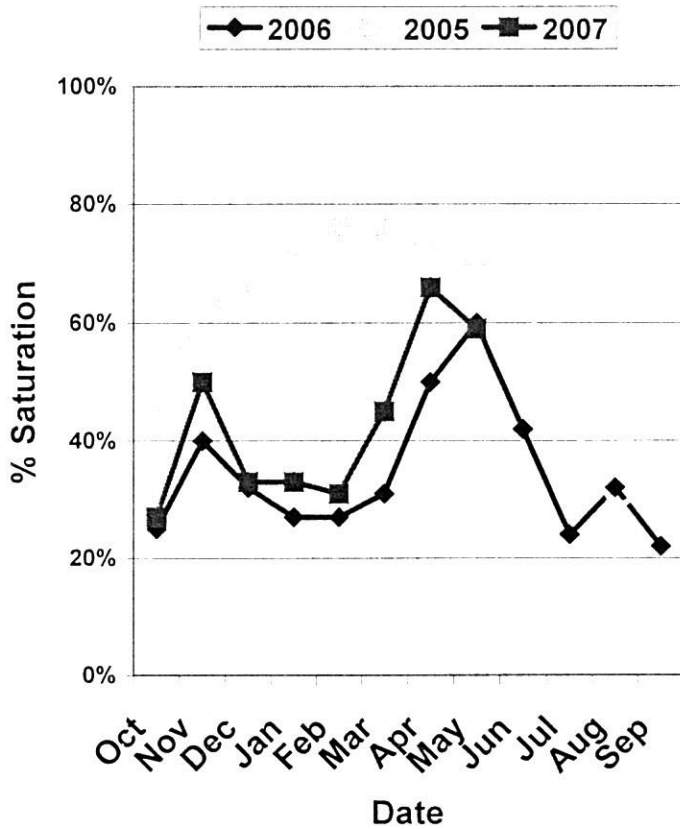
## South East Utah Soil Moisture



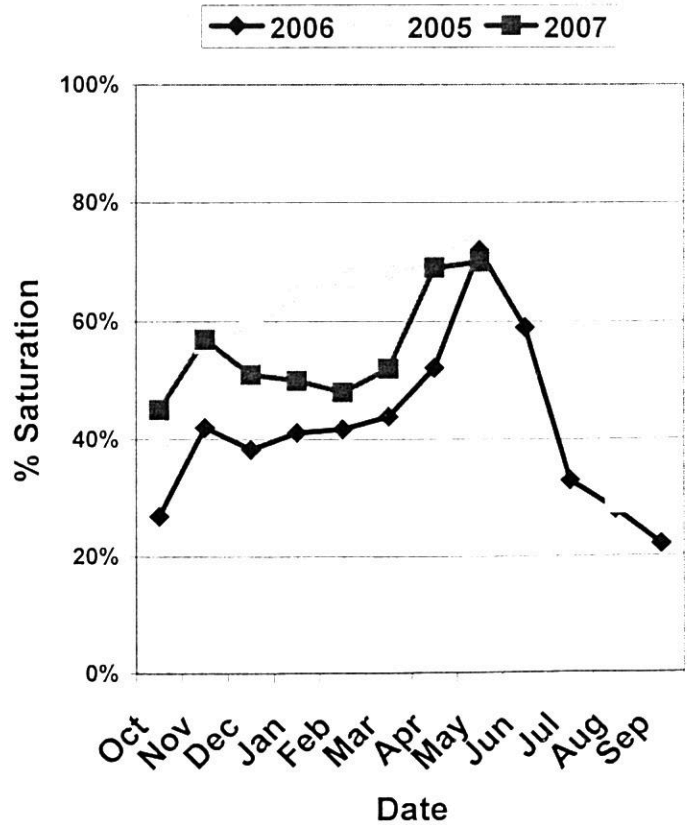
## Sevier/Beaver River Soil Moisture



## Southwest Utah Soil Moisture



## Statewide Soil Moisture



<b>UTAH SURFACE Snow Surveys Basin or Region 1-May-07</b>	<b>WATER NRCS SWSI/%</b>	<b>SUPPLY USDA Percentile</b>	<b>INDEX  Years with Similar SWSI</b>
Bear River	-2.43	21%	95,02,06,90
Ogden River	-3.00	14%	88,87,81,90
Weber River	-3.35	10%	92,03,04,90
Provo	-0.67	42%	88, 58,67,78
West Uintah Basin	0.83	60%	87,95,96,06
East Uintah Basin	-2.16	24%	94,03,81,91
Price River	-2.53	20%	89,91,63,03
San Rafael	-3.59	7%	94,02,03,04
Moab	-2.68	18%	90,89,03,01
Upper Sevier River	-0.16	48%	74,78,94,75
Lower Sevier River	-0.43	45%	68,01,89,71
Beaver River	-2.08	25%	68,01,89,71
Virgin River	-2.43	21%	03,02,04,91

Snow Surveys  
245 N Jimmy Doolittle Rd  
Salt Lake City, UT  
(801) 524-5213

SWSI Scale: -4 to 4  
Percentile: 0 - 100%

## What is a Surface Water Supply Index?

The Surface Water Supply Index (SWSI) is a predictive indicator of total surface water availability within a watershed for the spring and summer water use seasons. The index is calculated by combining pre-runoff reservoir storage (carryover) with forecasts of spring and summer streamflow which are based on current snowpack and other hydrologic variables. SWSI values are scaled from +4.1 (abundant supply) to -4.1 (extremely dry) with a value of zero (0) indicating median water supply as compared to historical analysis. SWSI's are calculated in this fashion to be consistent with other hydroclimatic indicators such as the Palmer Drought Index and the Precipitation index.

Utah Snow Surveys has also chosen to display the SWSI as a PERCENT CHANCE OF NON-EXCEEDANCE. While this is a very cumbersome name, it has the simplest application. It can be best thought of as a simple scale of 1 to 99 with 1 being the drought of record (driest possible conditions) and 99 being the flood of record (wettest possible conditions) and a value of 50 representing average conditions. This rating scale is a percentile rating as well, for example a SWSI of 75% means that this years water supply is greater than 75% of all historical events and that only 25% of the time has it been exceeded. Conversely a SWSI of 10% means that 90% of historical events have been greater than this one and that only 10% have had less total water supply. This scale is far more intuitive for most people and is totally comparable between basins: a SWSI of 50% means the same relative ranking on watershed A as it does on watershed B, which may not be strictly true of the +4 to -4 scale.

For more information on the SWSI go to: [www.ut.nrcs.usda.gov/snow/](http://www.ut.nrcs.usda.gov/snow/) on the water supply page. The entire period of historical record for reservoir storage and streamflow is available.

## SNOW COURSE DATA

MAY 2007

SNOW COURSE	ELEV.	DATE	SNOW DEPTH	WATER CONTENT	LAST YEAR	AVERAGE 71-00
AGUA CANYON SNOTEL	8900	5/01	0	.0	.0	1.8
ALTA CENTRAL	8800	4/26	48	20.9	53.8	36.5
BEAVER DAMS SNOTEL	8000	5/01	0	.0	1.9	4.7
BEAVER DIVIDE SNOTEL	8280	5/01	0	.0	.6	3.2
BEN LOMOND PK SNOTEL	8000	5/01	16	7.7	49.3	37.1
BEN LOMOND TR SNOTEL	6000	5/01	0	.0	3.9	6.8
BEVAN'S CABIN	6450	4/27	0	0.0	1.9	5.0
BIG FLAT SNOTEL	10290	5/01	46	14.4	19.8	20.9
BIRCH CROSSING	8100	4/30	0	0.0	0.6	1.4
BLACK FLAT-U.M. CK S	9400	5/01	0	.0	1.9	7.1
BLACK'S FORK GS-EF	9340	4/26	0	0.0	5.6	8.6
BLACK'S FORK JUNCTN	8930	4/26	0	0.0	4.9	6.8
BOX CREEK SNOTEL	9800	5/01	0	.0	6.5	10.3
BRIAN HEAD	10000	4/30	18	8.3	17.6	20.8
BRIGHTON SNOTEL	8750	5/01	15	6.5	31.2	25.0
BRIGHTON CABIN	8700	4/26	35	12.9	34.5	23.6
BROWN DUCK SNOTEL	10600	5/01	43	15.0	22.6	20.1
BRYCE CANYON	8000	5/01	0	.0	0.0	-
BUCK FLAT SNOTEL	9800	5/01	0	.0	21.4	15.6
BUCK PASTURE	9700	4/26	27	9.7	17.8	16.7
BUCKBOARD FLAT	9000	4/30	0	0.0	0.9	7.0
BUG LAKE SNOTEL	7950	5/01	22	7.5	22.7	18.0
BURT'S-MILLER RANCH	7900	4/26	0	0.0	0.0	1.3
CAMP JACKSON SNOTEL	8600	5/01	0	.0	.0	6.4
CASCADE MOUNTAIN SNO	7770	5/01	0	.0	15.9	-
CASTLE VALLEY SNOTEL	9580	5/01	0	.0	2.9	7.5
CHALK CK #1 SNOTEL	9100	5/01	32	11.7	27.9	25.3
CHALK CK #2 SNOTEL	8200	5/01	8	3.4	11.3	12.0
CHALK CREEK #3	7500	4/26	0	0.0	0.0	1.8
CHEPETA SNOTEL	10300	5/01	18	7.7	12.4	12.1
CLAYTON SPRINGS SNTL	10000	5/01	0	.0	2.8	-
CLEAR CK RIDG #1 SNT	9200	5/01	0	.0	19.0	15.7
CLEAR CK RIDG #2 SNT	8000	5/01	0	.0	5.6	7.9
CORRAL	8200	4/26	0	0.0	0.0	-
CURRENT CREEK SNOTEL	8000	5/01	0	.0	.0	2.6
DANIELS-STRAWBERRY S	8000	5/01	0	.0	10.3	9.5
DILL'S CAMP SNOTEL	9200	5/01	0	.0	11.2	9.4
DONKEY RESERVOIR SNO	9800	5/01	3	1.0	.0	4.2
DRY BREAD POND SNTL	8350	5/01	0	.0	15.4	18.3
DRY FORK SNOTEL	7160	5/01	0	.0	6.9	7.7
EAST WILLOW CREEK SN	8250	5/01	0	.0	.0	3.0
FARMINGTON U. SNOTEL	8000	5/01	44	17.9	50.5	31.8
FARMINGTON L. SNOTEL	6780	5/01	0	.0	14.8	-
FARNSWORTH LK SNOTEL	9600	5/01	45	15.8	14.0	21.1
FISH LAKE	8700	4/27	0	0.0	1.3	5.0
FIVE POINTS LAKE SNO	10920	5/01	23	8.1	23.0	17.5
G.B.R.C. HEADQUARTER	8700	4/26	5	1.9	15.8	14.2
G.B.R.C. MEADOWS	10000	4/26	39	15.4	32.4	25.8
GARDEN CITY SUMMIT	7600	4/26	21	6.7	16.6	14.7
GARDNER PEAK SNOTEL	8350	5/01	0	.0	1.6	-
GEORGE CREEK	8840				-	-
GOOSEBERRY R.S.	8400	4/27	2	0.9	4.2	8.3
GOOSEBERRY R.S. SNTL	7900	5/01	0	.0	.0	2.7
GUTZ PEAK SNOTEL	6820	5/01	0	.0	.0	-
HARDSCRABBLE SNOTEL	7250	5/01	0	.0	13.8	6.9
HARRIS FLAT SNOTEL	7700	5/01	0	.0	.0	1.5
HAYDEN FORK SNOTEL	9100	5/01	0	.0	14.9	13.0
HENRY'S FORK	10000	4/26	25	8.9	10.8	13.6
HEWINTA SNOTEL	9500	5/01	0	.0	2.4	9.3
HICKERSON PARK SNTL	9100	5/01	0	.0	.0	5.7
HIDDEN SPRINGS	5500	4/27	0	0.0	0.0	-
HOBBLE CREEK SUMMIT	7420	4/26	0	0.0	12.4	6.3
HOLE-IN-ROCK SNOTEL	9150	5/01	0	.0	.5	4.7
HORSE RIDGE SNOTEL	8260	5/01	0	.0	20.6	17.9
HUNTINGTON-HORSESHOE	9800	4/26	31	12.9	33.2	24.6
INDIAN CANYON SNOTEL	9100	5/01	0	.0	3.3	7.9
JOHNSON VALLEY	8850	4/27	0	0.0	3.1	3.8
JONES CORRAL G.S.	9720	4/27	32	9.4	9.0	-



SNOW COURSE	ELEV.	DATE	SNOW DEPTH	WATER CONTENT	LAST YEAR	AVERAGE 71-00
KILFOIL CREEK	7300	4/26	9	2.9	14.5	9.8
KILLYON CANYON	6300	4/27	0	0.0	0.0	-
KIMBERLY MINE SNOTEL	9300	5/01	5	2.4	6.7	12.5
KING'S CABIN SNOTEL	8730	5/01	0	.0	.4	7.6
KLONDIKE NARROWS	7400	4/26	0	0.0	22.6	13.3
KOLOB SNOTEL	9250	5/01	0	.0	14.4	18.2
LAKEFORK #1 SNOTEL	10100	5/01	6	1.7	10.4	11.5
LAKEFORK BASIN SNTL	10900	5/01	42	11.8	27.6	23.8
LAKEFORK MOUNTAIN #3	8400	4/26	0	0.0	0.0	1.8
LAMBS CANYON	7400	4/27	1	0.2	15.2	8.7
LASAL MOUNTAIN LOWER	8800	4/30	0	0.0	0.0	4.2
LASAL MOUNTAIN SNTL	9850	5/01	0	.0	.0	8.7
LIGHTNING RIDGE SNTL	8220	5/01	0	.0	17.5	-
LILY LAKE SNOTEL	9050	5/01	1	.8	6.4	11.1
LITTLE BEAR LOWER	6000	4/26	0	0.0	0.0	1.7
LITTLE BEAR SNOTEL	6550	5/01	0	.0	.0	3.4
LITTLE GRASSY SNOTEL	6100	5/01	0	.0	.0	.0
LONG FLAT SNOTEL	8000	5/01	0	.0	.0	1.8
LONG VALLEY JCT. SNT	7500	5/01	0	.0	.0	.0
LOOKOUT PEAK SNOTEL	8200	5/01	24	8.5	40.7	20.4
LOST CREEK RESERVOIR	6130	4/26	0	0.0	0.0	.0
LOUIS MEADOW SNOTEL	6700	5/01	0	.0	13.4	-
MAMMOTH-COTTONWD SNT	8800	5/01	0	.0	17.6	16.0
MERCHANT VALLEY SNTL	8750	5/01	0	.0	7.1	8.1
MIDDLE CANYON	7000	4/27	0	0.0	6.1	7.8
MIDWAY VALLEY SNOTEL	9800	5/01	21	9.0	23.0	23.2
MILL CREEK	6950	4/27	29	10.1	26.9	18.6
MILL-D NORTH SNOTEL	8960	5/01	0	.0	31.3	21.7
MILL-D SOUTH FORK	7400	4/27	0	0.0	22.2	12.4
MINING FORK SNOTEL	8000	5/01	0	.0	20.2	18.3
MONTE CRISTO SNOTEL	8960	5/01	35	12.6	34.1	28.3
MOSBY MTN. SNOTEL	9500	5/01	0	.0	7.3	12.0
MT. BALDY R.S.	9500	4/26	37	13.7	33.0	24.6
MUD CREEK #2	8600	4/26	6	2.0	20.0	8.4
OAK CREEK	7760	4/27	13	4.4	10.5	8.4
PANGUITCH LAKE R.S.	8200	4/26	0	0.0	.0	-
PARLEY'S CANYON SNTL	7500	5/01	0	.0	9.9	9.3
PARRISH CREEK SNOTEL	7740	5/01	17	5.9	34.0	-
PAYSON R.S. SNOTEL	8050	5/01	0	.0	8.3	13.3
PICKLE KEG SNOTEL	9600	5/01	0	.0	17.3	14.1
PINE CREEK SNOTEL	8800	5/01	9	3.8	13.2	21.2
RED PINE RIDGE SNTL	9200	5/01	0	.0	19.1	13.0
REDDEN MINE LOWER	8500	4/26	5	2.0	17.2	15.6
REES'S FLAT	7300	4/27	0	0.0	6.3	7.3
ROCK CREEK SNOTEL	7900	5/01	0	.0	.0	1.4
ROCKY BN-SETTLEMT SN	8900	5/01	8	4.7	24.3	25.3
SEELEY CREEK SNOTEL	10000	5/01	8	2.9	16.7	15.5
SMITH MOREHOUSE SNTL	7600	5/01	0	.0	5.7	7.5
SNOWBIRD SNOTEL	9700	5/01	51	24.5	68.9	41.3
SPIRIT LAKE	10300	4/26	32	12.4	9.5	14.7
SQUAW SPRINGS	9300	4/27	0	0.0	2.7	3.7
STEEL CREEK PARK SNO	10100	5/01	35	13.6	18.4	18.6
STILLWATER CAMP	8550	4/26	0	0.0	2.4	6.8
STRAWBERRY DIVIDE SN	8400	5/01	0	.0	14.5	11.3
SUSC RANCH	8200	4/26	0	0.0	.0	2.2
TALL POLES	8800	4/30	3	1.1	8.1	10.9
TEMPLE FORK SNOTEL	7410	5/01	0	.0	11.6	-
THAYNES CANYON SNTL	9200	5/01	27	10.3	31.9	22.5
THISTLE FLAT	8500	4/26	12	4.5	19.3	-
TIMBERLINE	9100	4/26	0	0.0	1.7	-
TIMPANOGOS DIVIDE SN	8140	5/01	0	.0	20.8	17.6
TONY GROVE LK SNOTEL	8400	5/01	37	15.2	51.8	34.2
TONY GROVE R.S.	6250	4/26	0	0.0	3.0	3.2
TRIAL LAKE	9960	4/26	40	15.5	32.9	25.2
TRIAL LAKE SNOTEL	9960	5/01	21	11.2	33.2	26.5
TROUT CREEK SNOTEL	9400	5/01	0	.0	.7	7.8
UPPER JOES VALLEY	8900	4/26	0	0.0	9.8	5.0
VERNON CREEK SNOTEL	7500	5/01	0	.0	.6	4.5
VIPONT	7670				-	-
WEBSTER FLAT SNOTEL	9200	5/01	0	.0	2.4	6.8
WHITE RIVER #1 SNTL	8550	5/01	0	.0	4.8	7.7
WHITE RIVER #3	7400	4/26	0	0.0	0.0	.5
WIDTSOE #3 SNOTEL	9500	5/01	0	.0	2.9	9.5
WRIGLEY CREEK	9000	4/26	0	0.0	9.6	7.3
YANKEE RESERVOIR	8700	4/30	0	0.0	2.8	6.0



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TEMPERATURE AND SOIL MOISTURE, RESERVOIR, SURFACE WATER SUPPLY INDEX, AND  
OTHER DATA BY VISITING OUR WEB SITE @:

<http://www.ut.nrcs.usda.gov/snow/>

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# **Utah Water Supply Outlook Report**

Natural Resources Conservation Service  
Salt Lake City, UT

